COUNTWAY LIBRARY
HC 3JD6 R

BOSTON
MEDICAL LIBRARY
8 THE FENWAY

Digitized by the Internet Archive
in 2016

https://archive.org/details/journalofmichiga3219mich

The Journal
of the
Michigan State Medical Society

Published Under the Direction
of the Council

Publication Committee
F. A. Baker, M. D. (Acting Chairman)
J. D. Bruce, M. D.
A. S. Brunk, M. D.
J. E. McIntyre, M. D.

J. H. Dempster, M. D.
Editor

F. C. Warnshuis, M. D.
Secretary and Business Manager

VOLUME XXXII
1933

BOSTON MEDICAL
JUN 1 [illegible]7
LIBRARY

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII JANUARY, 1933 No. 1

CONTENTS

A Work Plan for the Section on Gynecology and Obstetrics. Norman F. Miller, M.D..... 1

Tumors and Their Behavior. Henry J. Vanden Berg, M.D., F.A.C.S..... 4

The Bacteriophage. M. H. Soule, Ph.D..... 8

Treatment of Diabetic Coma. William V. Vander Voort, M.D..... 14

Some Physical and Social Aspects of Malnutrition in School Children. John George Slevin, B.Sc., M.D..... 21

Gynecological Symptoms of the Maladjusted Woman. B. W. Malfroid, M.D., F.A.C.S..... 25

Injuries of the Knee Joint. C. W. Peabody, M.D. 28

Sickle Cell Anemia in a Six Months Old Colored Female Infant. Hira E. Branch, M.D..... 35

Michigan Department of Health. C. C. Slemons, M.D., Dr.P.H..... 36

Report of the Committee on Cost of Medical Care 38

State Secretaries and Editors Meet in Chicago.. 45

Editorial:

Inroads Into the Practice of Medicine..... 51

Medical Politicians 52

The Supply of Physicians Exceeds the Demand 52

Medical Economics:

Trends in Medical Economics. Lloyd L. Savage, M.D..... 54

Communications 57

General News and Announcements..... 58

Society Activity..... 59

County Societies..... 67

Woman's Auxiliary..... 71

Of General Medical and Surgical Interest..... 72

A WORK PLAN FOR THE SECTION ON GYNECOLOGY AND OBSTETRICS*

NORMAN F. MILLER, M.D.†

ANN ARBOR, MICHIGAN

The Michigan State Medical Society, meeting at Jackson in 1886, passed a motion to establish sections of Medicine, Surgery, Midwifery and Gynecology "in order to facilitate professional and scientific work." The first Section meeting in our specialty was held in Lansing in 1887, forty-five years ago. The program for this meeting included papers on the following subjects: When Shall the Uterine Appendages be Removed? Ophthalmia Neonatorum: What is Vaginismus? Ovariotomy: Childbirth Lacerations; and many others quite as timely today as they were fifty years ago. In 1898 the name was changed to "Section on Gynecology and Obstetrics." During the intervening forty-five years contributions from the Section to the annual program of the State Medical Society have been characterized by the high quality and timeliness noted in the original papers. Individual effort has been predominant. In spite of the many commendable contributions during this time, we still seek the solution of many common obstetric and gynecologic problems. Evidence of this may be found by comparing the annual programs

*Chairman's address before the section on obstetrics and gynecology at the 112th Annual Meeting of the Michigan State Medical Society, Kalamazoo, September 14 and 15, 1932.

†Dr. Miller is professor of obstetrics and gynecology at the University of Michigan Medical School.

from year to year. Few remedial measures can claim uncontroversial existence. To a degree this controversial element is desirable and doubtless will continue prominent so long as our programs and scientific contributions are chiefly the product of individual effort. After this half century of activity we may reasonably inquire whether or not as a group we are doing all in our power to advance obstetrics and gynecology. As individuals the answer is debatable but as a group the answer is "no." As a group we have not as yet accepted our full responsibilities. We have before us many problems which should receive serious deliberation. By uniting our efforts we can not only add to the accomplishments of this organization, but can also attend to those responsibilities which any organization of obstetricians and gynecologists expecting to retain a prominent place in medical work must assume.

Believing in united effort I venture to suggest a concerted work program. Since changes are apt to be associated with unforeseen difficulties, and since the chance for successful realization of any work program is enhanced by keeping it well within attainable goals, I have purposely limited my recommendations to three, each of different character, all having a timely and significant bearing on obstetric and gynecologic issues of today. Machinery for developing these projects will need to undergo changes from their original recommended form. That is a minor point, however. The important thing is the willingness of this organization to undertake work in addition to its annual contribution to the program of the Michigan State Medical Society.

Recommendation One.—This has to do with our *birth certificates.* One need only be reminded that there are over 90,000 births in the State of Michigan each year to realize what a wealth of material and abundant experience this number of confinements represents. No one would deny the value of a critical unbiased analysis of 90,000 confinements. Yet this analysis, as well as data concerning the pregnant and puerperal states of many of the women and information concerning the newborn, is accessible. By making suitable changes in our birth certificates much of this information would become available. Perhaps the desired end could be achieved by simply adding items to the present certificate. If so, alterations which might interfere with or be unacceptable to such organizations as the United States Bureau of Vital Statistics and the American Public Health Association could be avoided. The possibilities of such changes are great; the data obtained would be of immense value in indicating the status of obstetrics in Michigan today and would be important in shaping obstetrics in this State in the future. Lest there be misunderstanding, it must be emphatically pointed out that much time and effort has already been exerted by organizations interested in public health and vital statistics in developing the birth certificate in its present form. Credit must be given for accomplishments already made. Furthermore, it must be pointed out that revision is not the simple matter it may at first appear. To be successful it must be sufficiently inclusive to warrant change, it must have the approval and the warm support of the profession of the State, it should be acceptable to the Bureau of Vital Statistics and other organizations interested in public health. With the hope of seeing the necessary alterations or additions become a reality, I recommend that a committee of five be appointed by our newly elected chairman to study and propose those revisions which will permit the accumulation of additional valuable information concerning the pregnant and puerperal states as well as the type, indications for and complications of delivery, and any other information the committee may deem advisable.

If, when the committee takes up its task, no satisfactory certificate be found, then it should become the duty of this committee to depart from the traditional form (if such form appears to have outlived its period of usefulness) and take the lead in devising a new and more comprehensive one. It is further suggested that this committee make its report at the next annual meeting of this Section, and in order to permit free discussion, that a copy of its recommendations be sent to obstetricians and gynecologists of this State some time before the annual meeting.

While we can only recommend that certain changes be made, it is to be hoped that they will receive the approval and support of the entire profession in the State. In this connection I am happy to say that the Commissioner of Health, Dr. C. C. Slem-

ons, has signified his willingness to coöperate in any effort which will lead to the betterment of obstetrics. A committee appointed for the purpose of making recommendations for revision of our birth certificates should seek the advice and assistance of the Commissioner of Health, as well as others interested in public welfare and vital statistics.

Recommendation Two.—This involves a highly controversial subject to which this group should give great deliberation. I have reference to *Birth Control.* It is not my intention to enter into any discussion of this subject at this time. Neither do I care now to argue for or against it. I am advocating, however, that the problem be given early serious consideration by this group. There is much to be said both for and against contraception. Too frequently we are blinded by or are over-enthusiastic about the aspects of the problem that are apparent to us and fail to give consideration to vastly different sides less apparent to us but obvious to others. No one can foresee all the evils or the benefits resulting from the use of contraceptives. Perhaps careful examination of the subject from all its angles would justify an expression of opinion from this body, and again it might make us hesitant about committing ourselves one way or another. Be that as it may, I believe it is hightly incumbent on this group to give the matter its serious attention. The public, as well as the medical profession of the State, has a right to look to this Section for advice, and it seems to me we can no longer justly dodge the question. For us to look elsewhere for an answer to this problem is shirking our duty. As a second proposal, therefore, I suggest that Birth Control be made a subject for discussion in this section at our next annual meeting, at which time all aspects of the problem both pro and con may be carefully considered. In order that we may view the subject in a thoroughly dispassionate manner no aspect of the problem should be overlooked in this proposed symposium. It is further suggested that a committee be appointed to study Birth Control and make recommendations to this Section at the next annual meeting. In order to facilitate the work of the committee it is suggested that copies of all papers bearing on Birth Control which are to be included as part of the suggested symposium be made available to the members of the Committee at least four weeks before the next annual meeting. If this Section is the active, healthy organization I believe it to be, it can no longer avoid consideration of this timely matter, even though it be controversial.

Recommendation Three.—The third recommendation deals primarily with *clinical obstetric and gynecologic problems.* Since its incipiency this Section has had programs characterized by individual effort. Perhaps some significance may be attached to the fact that during this period but few of our every-day problems have been satisfactorily solved. The subjects discussed fifty years ago are as appropriate today as they were then. One would hesitate to say that the conscientious labors of these earlier workers fell short of their mark, yet opinions still differ as to the best method of treating most of the common gynecologic and obstetric conditions. A good example is the common uterine fibroid for which either surgery, or radium, or X-ray is advocated. Excepting the large or complicated fibroids, we find staunch advocates for each of the three methods. The same dissent occurs over pelvic inflammatory disease, incomplete abortion, prophylactic forceps, episiotomy, repair of old tears following delivery, et cetera. What does all this difference of opinion mean? Are there several ways of accomplishing *exactly* the same result, or is there a *best* method? If there is a best method many patients are being inadequately treated. Doubtless the fact that most reports of cases treated come from individuals, who though sincere are often biased or overly enthusiastic, partly accounts for this unsettled state. As mentioned earlier, a certain amount of this individual difference or controversial attitude is essential for the healthy development of any branch of science. Controversy generally means progress. Controversy will exist in connection with all situations where a definite, clear-cut superiority of one method is not demonstrable. Moreover, individual effort is basic and must not be belittled, yet if there were more concerted effort, more united interest, less selfishness and haste, more care and thoroughness in the consideration of many of our present medical problems it would be possible to arrive at the most desirable remedial measure. Believing as I do that

some of our common problems can be more satisfactorily studied if we unite in our efforts, I venture a third recommendation. Specifically, I suggest that the chair appoint a committee of five, to be known as the Committee on Clinical Problems, which will have a twofold task. First. The committee shall develop the necessary machinery for organizing individual physicians, clinics, or hospitals (that signify their willingness to coöperate) in a combined study of certain problems. These individuals, clinics, or hospitals are to be grouped according to their particular fitness, either in physical equipment, or in clinical material, to attack these problems. Second. The committee shall choose timely problems which will be readily adaptable to segmented study and at the same time permit satisfactory correlation of results. By way of illustration let us take four active obstetrical services, all in different cities manned by different groups of physicians. Let placenta previa be the problem. For a period of six months (or a year) each of the different services shall, so far as possible, follow one only of the *accepted methods* of treatment. At the end of six months (or year) the method of treatment in each service will change so that in the end each shall have used all the different forms of treatment. Data for all cases treated in the four hospitals will then be collected and carefully analyzed, the final report being credited to those who have taken an active part in the work. Study of clinical problems in this manner would require time, but in the end the results would more than justify the time and energy required. Reports of this character should minimize over-enthusiasm and personal bias to a large extent, and tend to establish the most desirable method of treatment. The plan could be developed to apply to many of the common clinical obstetric and gynecologic problems. If care is used in the selection and distribution of these problems, if haste is not made a paramount factor, concerted effort of this sort should pay big dividends in the form of worth-while contributions to our medical knowledge.

I believe these recommendations to be sound. If those delegated to carry on the active work are given the wholehearted and sincere support of the profession I am satisfied that this program for united endeavor need not be just another case of medical utopianism.

TUMORS AND THEIR BEHAVIOR*

HENRY J. VANDEN BERG, M.D., F.A.C.S.
GRAND RAPIDS, MICHIGAN

In normal tissues the cells are alike and always the same, and in them cell division always follows a definite pattern.

Research workers in cancer, more especially the cytologists, are convinced that cancer is a disease of the cell which manifests itself during division. While the division of the majority of the cells in cancer is, after all, quite normal, there are many abnormal types, including mitosis, direct nuclear division and direct and indirect fragmentation. Of these the chief mode of division is by mitosis. One of the most outstanding irregularities of the division of the cancer cell is in the behavior of the nucleus, which will frequently divide without division of the cell, resulting in the formation of so-called giant cells that contain then two, three, or many times the normal number of chromosomes. Some of the chromosomes in the giant cells are said to dissolve and diffuse in the cytoplasm. In the normal cell a definite number of chromosomes is formed for each species; for example, there are forty-eight in the human and forty in the mouse. In tumor cells these numbers may depart from the normal in that there may be either fewer or more. It has been suggested that the abnormal cell behavior, which may include changes in the chemistry of the cell, may mean unequal distribution of cell potencies, loss of cell dif-

*From the Grand Rapids Clinic. Read before the surgical section, 111th annual meeting of the Michigan State Medical Society, September 23, 1931.

ferentiation, freedom from normal restraints of growth, and exaggeration of growth over functional capacities.

It might be said from the outset that nothing is known of the actual cause of tumor growth. Many hypotheses have been set forth, but none is entirely adequate to explain all the phenomena presented by malignant disease, and many of them beg the question, being merely theories as to how, rather than why, the neoplastic change took place. Dr. Maude Slye, from her breeding experiments on mice, feels certain that an endogenous factor exists. She calls it cancer susceptibility. Her opinion is based on the complete study of 40,000 mice. That is, she has watched them from the time they were born until the termination of their normal span of life. All were submitted to a post-mortem examination. According to her study there is not only a general susceptibility, but a definite tissue susceptibility. For example, some mice would develop skin cancer and transmit it to their offspring, and others would develop cancer of the breast, and so on. She is convinced that the tendency to develop cancer and the capacity to resist it are unquestionably influenced by heredity. There is no doubt that resistance to the formation of a tumor is a dominant character, while susceptibility is a recessive character. This is well borne out in the incidence of human cancer in the ratio of 90 to 10. That is, 90 per cent of persons do not develop cancer, against 10 per cent of them that do. By selective breeding it is possible for Dr. Slye to breed in or breed out cancer at will.

In animals, then, it can be said with a great deal of certainty that cancer is transmitted from parent to offspring. It is the general opinion today that this same tendency obtains also in man. If, then, the cell has within itself sleeping cancer factors—in other words, if a susceptibility exists and has been handed down through the germ plasm—then a long continued irritation by any one of a variety of physical or chemical stimuli may awaken the tissues to bear fruit in that cancer may follow.

It is considered a general rule that cancer does not originate in healthy tissues. Before cancer has actually started as the result of irritation, the tissues have undergone inflammatory changes or scar formation which forms a transition between the normal tissue and tumor formation, as obtains, for instance, in syphilitic leukoplakia, tuberculosis, chronic eczema, chronic ulcers, X-ray dermatitis, and so on. There are many well known examples of tumors following irritation of one kind or another. For example, cancer of the skin of the face and lower lip may come from exposure to the actinic rays and heat. These cancers are, of course, most prevalent in outdoor workers. The lower lip is devoid of pigment to give protection against actinic rays and heat. There is also smoker's cancer resulting from mechanical irritation and the heat of the pipe stem. This incidence was more common in the clay-pipe days than now. Moreover, in the lip two types of epithelium meet—mucous membrane and skin—an arrangement that is known to predispose to the development of tumors. The edges of the nostril, the eyelids, the penis, the vulva and the margins of the anus are other examples. The great rarity of cancer of the skin in negroes has frequently been cited as an example of the protective mechanism of pigmentation. Similarly, cancer of the skin is said to be more frequent in blondes than in brunettes. Cancer of the tongue and cheek is usually associated with irritation from jagged teeth; mammary cancers from the pressure of a corset or of clothing. Mammary cancer is rare in countries in which the breasts are allowed to be exposed. It is well known clinically that carcinoma of the gall bladder rarely, if ever, occurs in the absence of gall stones. Some good examples of heat being the exciting cause of cancer are found among the natives of Kashmir, in whom cancer develops from burns resulting from the custom of carrying the Kangri, or eathenware baskets containing charcoal fires, under the clothing close to the skin of the abdomen. The same type of tumor is found on the shins of engine drivers as the result of long exposure to the heat of their fires. The Chinese men eat at the first table while the rice is hot, throwing it with some force, by means of the chopsticks, into the mouth and pharynx, and not infrequently they suffer from cancer of the pharynx and the beginning of the esophagus. The women eat at the second table when the rice is cold and they seldom have the disease.

There are a number of interesting occupational cancers. It has been learned from

experiments with tar and its distillates that they are potent factors, or exciting agents, in producing cancer in susceptible animals. This obtains also in man, as is indicated in the incidence of cancer of the skin in workers with tar or its fractions. Cancer of the scrotum in chimney sweeps has long been recognized as the result of chronic irritation by soot. Soot contains a certain amount of tar and pitch. Workers with crude oil (machinists and mechanics) may develop cancer of the skin, especially of the scrotum. It is said that about 2 per cent of all the workers in the shale industry develop cutaneous cancer. Cases of skin cancer in petroleum distilleries and refineries have been reported in several countries. Aniline dye workers are liable to develop cancer of the urinary tract, most especially at the neck of the bladder. A good example of cancer being caused by a chemical is in workers with arsenic in some form, or patients who take arsenic internally over a long period of time. They develop multiple keratoses on the palm of the hands, also on the face, which may result in squamous cell carcinoma. Personally I have seen such a case, but the patient died of cancer of the urinary bladder. Skin cancer had not developed. I cannot say definitely, of course, that in this case arsenic was responsible for the bladder cancer, but I can see how it might have been so. The location of lesions in the case of arsenic cancer is the same whether the victim has taken arsenic or has been working with arsenic. Chromium, which is quite widely used today in the industries, may be the cause of cancer formation. A few years ago the newspapers reported several cases of of cancer that occurred in workers with radium-mesothorium-luminous paint used on watch dials. One could go on and list a number of other examples following chronic irritation of one kind or another, but sufficient has been said to demonstrate its importance.

VARIABILITY OR DEGREE OF MALIGNANCY

It has long been realized that tumors grow more rapidly in the young than in the old. Age is, therefore, an important consideration.

In this connection the matter of location of a tumor is interesting; for example, carcinoma of the scrotum is relatively malignant, while carcinoma of the skin of the face is generally curable in a high percentage of cases. Cancer of the tongue and tonsil is rapid. Cancer of the lower lip is very slow, while that of the upper lip is relatively much more rapid. Cancer of the stomach pursues a relatively rapid course, whereas that of the large bowel grows and metastasizes very slowly. Tumors of the testes are very rapid in their growth. Carcinoma of the cervix is relatively very malignant, whereas carcinoma of the body of the uterus grows relatively slowly.

The time element in the growth and spread of tumors is dependent also upon the cellular activity. Broders, for example, distinguishes four different grades of cancer, dependent upon the degree of differentiation of the cell. Tumors containing a large proportion of undifferentiated cells with round nuclei, containing a single deeply stained nucleolus—what Broders calls a "one-eyed cell"—are placed by him in Grade IV, with a hopeless prognosis. The most highly differentiated cells are placed in Grade I. They have put a brake on themselves, so to speak, having differentiated beyond their ability to reproduce. These offer the most favorable prognosis. Grades II and III are intermediate without, of course, an arbitrary line of differentiation. Experience has demonstrated that a parallel exists to a marked degree between the histological structure and the usual clinical course.

The kind and amount of supportive stroma is also a factor in the rapidity of growth of the tumor, a medullary tumor being very much more rapid in growth than a scirrhus tumor, which has a large amount of highly resistant supportive tissue.

METASTASES AND ROUTES OF SPREAD

The formation of secondary tumors is a cardinal property of malignant new growths. Innocent tumors grow by expansion much as a balloon grows when it is filled with air. Malignant tumors spread by infiltration, by transplantation and by embolism. The behavior of the infiltrating process is well understood. The tumor cells extend in any direction and without regard to the surrounding structures, as is well exemplified in the case of cancer of the cervix, which may extend and eat its way into

the rectum and into the bladder. Spread by transplantation is not a common method, but when it does take place it occurs most often in the abdominal cavity, as in the case of cancer of the stomach. The cancer cells are shaved off by peristalsis when the serosa is reached, then through gravity they tend to migrate down. The freed cells may then attach themselves anywhere to the serosa surface and get a foothold for secondary growth. By virtue of gravity these secondaries lodge most frequently in the pelvis. In women they not infrequently attach themselves to the ovaries. The practical clinical application of this behavior is the digital rectal examination of cases in suspected or indefinite cancer of the stomach. The finding of a bunch or mass in the cul-de-sac may be the key to a diagnosis. Another example of transplantation of cancer cells, one well recognized by surgeons, is that, if a tumor is cut during the course of its removal, there is then danger of implantations in the immediately surrounding tissues. While the method of spread by extension and transplantation is of considerable importance from a clinical point of view, yet the spread by embolism is of considerably greater importance. Generally speaking, carcinomas spread along the lymphatics, and sarcomas through the blood. The fact is, however, that not infrequently carcinomas travel through the blood stream, whereas few sarcomas travel along the lymphatics. Lymphosarcomas constitute an outstanding exception, the reason being that the origin of the tumor is within the lymphatic system. The mechanics of the circulation will explain the majority of the metastases. If, for instance, the primary growth is situated in the intestinal tract it is easy to comprehend that the tumor cells carried by the portal blood should lodge and grow in the liver. Likewise cells carried by the general circulation would naturally first be caught and filtered out in the capillaries of the lungs. Many cancer cells are little, if any, larger than blood cells, and it is, therefore, possible for them to pass through the capillaries of the lungs to be sent out everywhere throughout the body. If this occurs it does not mean necessarily that the cells that have not been caught out in the filter will produce secondary growths in the tissues in which they may lodge, as there is a definite organ and tissue resistance on the one hand, and on the other a predilection for secondary growth. No doubt large numbers of tumor cells must lodge in the skeletal muscles, the heart muscle, the pancreas, the spleen and the uterus, all with a rich blood supply, yet secondaries are seldom found in these organs. This is an interesting tumor phenomenon illustrating tissue resistance to invasion of tumor cells. Contrariwise in carcinoma of the prostate, thyroid or breast, also the bronchus carcinomas and hypernephromas, the metastases show an extraordinary preference for the osseous system, so that the bones in the skeleton may show numerous and extensive deposits, while the other organs may remain free.

There are other interesting examples for which there is no intelligent explanation. Squamous cell cancinomas involve the local lymphatic glands, but rarely the distant viscera. Strangely enough, in the case of a hypernephroma there may be a single osseous metastasis only. I saw such a case in which the scapula was, as far as could be determined, the only bone so affected. A neuro-blastoma beginning in the adrenals may give rise to multiple secondary growths, all confined to the liver. The skin seems to be a favorite site for secondaries in a melanoma, also in a lymphosarcoma, and in carcinoma of the rectum. The heart and spleen were listed with those organs that seldom harbored secondaries. They are also seldom the seat of primary tumors.

OTHER INTERESTING TUMOR PHENOMENA

The great majority of cancers of the gastro-intestinal tract are at the beginning or at the end—in other words, in the stomach and rectum. The small intestine is skipped—cancer of the small intestine is a very rare occurrence.

Carcinoma of the breast with few cells and abundant stroma may appear in the glands as a highly cellular growth with scanty stroma.

Secondary growths may far outstrip the primary tumor. I recall having witnessed an autopsy in which practically all the organs of the body, including the brain and heart muscle and adrenals, were practically filled with metastases, and only after a long search was the primary found. It was a small growth on the edge of the tongue. The very extensive metastasization was unusual from the standpoint of the type of

tumor, since a squamous epithelium rarely produces bulky metastases, as already mentioned.

Organs liable to be the seat of primary tumors, such as the breast, pancreas, uterus, stomach and intestines, rarely harbor secondaries, whereas those in which secondary growths are prominent, as the lungs and liver, primary growths are rare.

It is highly desirable that every clinician be familiar with the different types of tumors, the gross diagnosis, and their behavior with respect to location, their cellular activity, their usual routes of spread, and so on. One who is familiar with tumors and their behavior is in a better position to render a more intelligent diagnosis and prognosis. Such knowledge should also enable him to render a more efficient treatment.

THE BACTERIOPHAGE*

M. H. SOULE, ScD., LL.D.†
ANN ARBOR, MICHIGAN

It is a commonplace in the experience of all to find that most discoveries have their roots deep in the past. The phenomenon of cell lysis by the bacteriophage, which has been so intensively studied during the past fifteen years, is no exception to this generalization.

In 1896, a paper appeared in the Annales de l'Institute Pasteur in which the author, Hankin, drew attention to the notable bactericidal properties of some of the river waters of India. The Jumma, just below Agra, contained over 100,000 organisms per cubic centimeter, but five kilometers further down the river there were present, in the same quantity of water, only 90,100 organisms. On extended investigation it was found that the water, when filtered through an infusorial earth candle, exerted a marked lethal action upon the cholera vibrio in a test tube, an effect which was abolished by boiling. Hankin attributed this destructive action to a volatile substance which he failed to isolate but his observation remained unexplained and was forgotten until brought into light again by d'Herelle.

The fundamental observation which led to the discovery of the bacteriophage was made by d'Herelle in 1917. He noted, while working at the Pasteur Institute, in a sterile filtrate from the feces of a patient convalescent from Shiga dysentery, something which inhibited the development of the causative bacilli and under certain conditions destroyed them. By way of example, if a few drops of such a fecal filtrate were introduced into a young broth culture of B. dysenteriæ in which a clouding due to bacillary growth was just beginning to appear and the mixture further incubated, the usual and progressive multiplication did not occur, but after twelve to twenty-four hours all trace of bacillary growth had disappeared. An unique feature about this phenomenon and one distinctly outside the realm of previous experience was that the lysis was found to be indefinitely transmissible in series. At the end of an experiment the principle could be separated off by filtration and the resulting sterile filtrate used to start the lysis of a second bacterial culture. The bacilli were no longer detectable in cultures subjected to the influence of this agent and d'Herelle came to the conclusion that the substance responsible for this lysis of growing bacteria was a living filterable micro-organism which he called the Bacteriophagum intestinale. An active filtrate of a lysed culture of dysentery bacilli is spoken of as a Shiga bacteriophage or the shorter form "phage" is used by some authors. However, a number of writers not wishing to be involved in expressing a view on the ultimate nature of the entity prefer the term "lytic principle."

> Great fleas have little fleas
> Upon their backs to bite 'em.
> And little fleas have lesser fleas,
> And so ad infinitum!

The activity of a bacteriophage obtained in this manner could also be demonstrated in cultures of bacteria on the surface of

*From Hygienic Laboratory, University of Michigan. An address given before the Wayne County Medical Society, May 10, 1932.

†Dr. Soule obtained the degree of Sc.D. in Bacteriology from the University of Michigan in 1924. He has been professor of Bacteriology in the University of Michigan Medical School since 1931.

solid mediums. When a few drops of a young broth culture of the Shiga bacilli were spread on an agar plate and allowed to dry, if the inoculated area was streaked with a loopful of a filtrate exhibiting lytic activity and incubated, the plate showed a very striking and characteristic appearance. The uniform layer of normal growth of the bacilli was pitted with discrete sharply eaten out circular areas where no growth was evident. These "phages" d'Herelle claims to be colonies of the bacteriophage.

The name of Twort is frequently joined with that of d'Herelle as co-discoverer of the phenomenon. In 1915, Twort, working with vaccinia, described some experiments wherein he had observed that certain colonies of cocci underwent a glassy degeneration. Microscopical examination of this material showed only granular debris without proper coccal forms. He further found similar degenerative changes could be induced in healthy colonies by inoculation with a fragment from one of the diseased colonies. The infective material was capable of passing unglazed porcelain filters and of transmission through an indefinite number of generations. From a broad point of view these data appear practically identical with those of d'Herelle although obtained under different circumstances and with a different type of organism.

There should also be included under the caption of early observations the "Flatterformen" colonies of Gildemeister (1917). His work was devoted entirely to colony morphology, but photographs show that he was dealing with cultures infected with the bacteriophage. d'Herelle insists that the bacteriophage was not concerned with the phenomena recorded by these two workers. To the outside observer of a rather acutely waged dispute there is no distraction from the brilliant experimenting of d'Herelle by a suggestive priority on the part of others.

THE ORIGIN AND METHOD OF OBTAINING THE PHAGE

There has been a strong tendency to regard the bacteriophage as intimately associated with the alimentary tract either in a diseased or healthy condition since the first isolation of the agent by d'Herelle was from human fecal material. With the passage of time the bacteriophage has been obtained from a variety of sources, some of which would preclude the possibility of intestinal contamination and occasionally it has appeared spontaneously in ordinary cultures in the laboratory.

The isolation of the principle may usually be effected by emulsifying several specimens of human or fowl feces in broth* and incubating for several hours; the larger particles are removed with filter paper and the filtrate is subsequently passed through an unglazed porcelain or infusorial earth filter. Composite samples of city sewage are a most convenient source from which to develop a bacteriophage. To detect the lytic agent, a given surface culture of bacteria is inoculated with the filtrate and after incubation an examination is made for the presence of a "plage" or bacteriophage colony.

When a bacteriophage has been obtained, its action on a given organism may be enhanced. This is done by repeated feeding and filtering. As ordinarily carried out, the procedure consists of adding to the active filtrate a few drops of a young broth culture of the germ and incubating. Usually after a preliminary increase in the turbidity, a result of the multiplication of the organisms, the broth becomes clear. The vast majority of bacteria have been dissolved. If such a lysed culture is filtered and feeding with young bacteria again resorted to, a filtrate will ultimately be obtained which will, when diluted a million fold, induce lysis in a young broth culture. Such an active filtrate free from bacteria is ordinarily understood when reference is made to a bacteriophage. The increase in activity of the bacteriophage can be gauged by the number of bare "plages" formed in cultures made on agar. A phage has maximal virulence, according to d'Herelle's definition, when a single bacteriophage corpuscle added to a broth tube containing 250 million organisms per cubic centimeter gives complete lysis when held at 32° C.

Naturally it would be expected that a lytic agent developed under these conditions would be active mainly in connection with the colon-typhoid-dysentery group and it is with relation to such organisms that the phenomena have been most intensively studied. Nevertheless, the activity is by no

*If the material is to be used clinically, a synthetic medium of known composition containing asparagin as a source of nitrogen is to be preferred.

means limited to this group but has been found to embrace the whole range of intestinal organisms, the hog cholera and the hemorrhagic septicemia group, the staphylocci, etc.

GENERAL CHARACTERISTICS

Although a bacteriophage which has been obtained from the stool, in a case of intestinal disease, is usually active for the causal organism only, this is not invariably the case and in some instances the principle is polyvalent in that its action may be exerted upon a number of bacterial species, usually, however, not to the same extent upon each. Thus a given bacteriophage may have a powerful dissolving action upon the Shiga bacillus, a moderate one on B. typhosus and a slight action upon B. coli. However, a phage can frequently be adapted to lyse an organism on which it has initially no demonstrable effect. The adaptation is usually accomplished by the method of passage. A little of the original phage is added to a young broth culture and incubated. When lysis appears to be complete, the culture is filtered and a portion of the filtrate is added in its turn to a fresh broth culture. This process of successive filtrations and lysis of fresh normal bacteria may be repeated as often as is necessary. Each culture must be sterilized by filtration, never by heating, and filtration should take place as soon as clearing is complete. There seems to be no limit to the possible range of organisms for which a phage may develop virulence and attention should be directed to the fact that active preparations, when sealed in glass ampoules and stored at room temperature, will retain their lytic power practically undiminished for periods of at least fifteen years. It was believed by the early workers that a lytic principle obtained from the intestinal tract could be adapted to only the fecal organisms, but the experiments of d'Herelle lead him to believe that there are no such bounds and he reports that he was successful in adapting a staphylococcal phage to lyse B. dysenteriæ.

The phenomenon of lysis is exerted most strikingly on young actively multiplying cultures. This reaction takes place over a fairly wide range of hydrogen ion concentration, but is most active on the alkaline side of neutrality. No bacteriophagic lysis can be demonstrated on dead bacilli but the devitalized cells will adsorb the lytic agent.

When bacteriophage activity is very marked a given population of bacteria may be completely destroyed, but it more commonly happens that, although destruction appears complete, some of the organisms survive, and, if incubation be continued, growth begins to reappear again after an interval of a few days. Subcultures of such surviving organisms give growths of the original bacterium upon which the lysis was carried out, but these secondary cultures often show marked differences from the typical parent strain, the most outstanding of which is a resistance to bacteriophagy. Although all the survivors do not exhibit this attribute, phage-resistance is commonly associated with the secondary growth.

The bacteriophage is possessed of specific antigenic properties and the injection of a suspension of the material into animals results in the production of a specific antiserum, an anti-phage anti-body. However, since such a suspension will contain lysed bacteria, ordinary bacterial antibodies, such as agglutinins, precipitins, etc., are developed at the same time.

In comparison with most unicellular organisms bacteriophage has relatively high powers of resistance to various agencies although all agents capable of exerting a destructive action on living matter will destroy the activity of the phage when applied in sufficient intensity. Different samples show variation in resistance to heat but complete inactivation takes place between 70 and 75° C. The susceptibility of phage to ultra-violet rays is of the same order as that of bacteria. Most antiseptics inhibit phage activity at a concentration intermediate between that of the vegetative forms of bacteria and the spores of B. subtilis.

The lytic particles carry a negative charge, hence they are not readily adsorbed by the ordinary bacterial filter. However, the principle may be removed by adsorption in the presence of the hydrophil colloids such as gum arabic. It is also of interest to note that when sensitive bacteria are incubated with phage in a medium containing ten to fifteen parts of gum arabic or gelatin no visible lysis of the cells occurs.

THE NATURE OF THE BACTERIOPHAGE AND THE MECHANISM OF ITS ACTION

Regarding the true nature of the bacteriophage there has been, and still is, much con-

troversy. Various theories have been put forward but these essentially center around two, namely: (a) d'Herelle considers the active agent to be a living filterable microorganism which parasitizes the bacteria and causes their destruction by lysis, (b) Bordet believes the phage to be a non-living ferment supplied by the bacteria themselves, the bacteria become modified in some way so that an inherent tendency to autolytic processes is exaggerated. Whatever may be the final outcome regarding the nature of the lytic principle itself there is general agreement that the lytic agent is a small particulate body. Since an active phage shows no visible particles when examined with the ultramicroscope various attempts have been made to estimate the size of the individual corpuscles with rather unsatisfactory results. The best data indicate that the dimensions of the lytic unit lie between 10 and 100 $\mu\mu$.

When a dilute bacteriophage is first added to a culture of bacteria the initial action of the agent on the bacterial population may be to increase its rate of growth. This stimulating effect which precedes bacteriolysis possibly indicates an early alteration in the metabolism of the cell, which finds its expression at this time in multiplication. However, when a specific phage is added to the bacterial culture in excess, the first result of contact between bacteriophage and bacterium is the adsorption or absorption of the bacteriophage by the bacterium. The latter is so affected by contact with the phage that within a few minutes and perhaps seconds it is rendered incapable of propagation, apparently the bacteria are killed immediately and lysis occurs 20 to 30 minutes later. Viewed under the microscope the involved bacteria are seen in certain instances to assume a globular shape before they disintegrate and disappear. With the disintegration of the cells d'Herelle assumes the multiplication of the phage to occur, but it has been demonstrated that an increase in the concentration of lytic principle in the medium will take place without concomitant cell destruction although this is not ordinarily the case.

The fact has been established that phage particles can multiply only in the presence of bacteria that are actively growing, but no consistent satisfactory explanation is available as to the exact mechanism of phage exaltation. In addition, several investigators have noted that the bacteriophage does not lyse in saline nor does it proliferate under these conditions but both do occur if some broth is added.

When a bacteriophage has been adapted to one strain of a given species, characteristic differences are observed when other strains of the same species are subjected to the action of the lytic agent. The phage may be polyvalent, that is, exhibit lytic power for many strains of the same germ, or lysis may be limited only to the strain for which the phage is adapted. In brief, one cannot predict with certainty whether a selected strain will be susceptible to lysis by a phage which has been adapted to a member of the species. Ordinarily it is necessary to adapt the phage to the strain selected and even under such conditions the ultimate virulence of the phage cannot be assured, as phage-resistant strains are very common.

THE BACTERIOPHAGE IN THE INFECTIONS

d'Herelle early recognized that an active specific bacteriophage possessed all of the attributes of the theoretically ideal therapeutic agent. In many of his writings the relation of the lytic principle to disease has been a conspicuous feature and he makes the widest claims for this agent as a natural therapeutic substance. He sees in the course of such diseases as typhoid a struggle for supremacy between lytic principle and invading germ; in the natural cure of these diseases the destruction of bacteria by this agency; in their chronicity, the period occupied by the phage in reaching a degree of virulence sufficient to effect this. He further claims by the use of the principle to have treated successfully cases of dysentery, typhoid, plague and other diseases and to have controlled and stamped out epidemics of cholera, avian typhoid and barbone. "The beginning of an epidemic is marked by the diffusion of the causal bacteria, its end by the diffusion of the bacteriophage virulent for this bacteria."

The accuracy of these statements has been experimentally investigated by many, with the result that some workers have supported and advanced the claims of d'Herelle, while others have observed an increase in susceptibility as a result of treatments with the lytic agent. The clinical reports of the

therapeutic use of appropriate phages are mostly uncritical and poorly controlled, resulting in an unstinted enthusiasm to use the phage whenever the opportunity presents itself, interpreting all improvements as directly due to the lytic agent and all failures as dissociated from the agent, or marked condemnation because of unconvincing results. That there is a growing interest in the bacteriophage as a therapeutic agent there can be no doubt, but one finds in the literature such glowing reports of hopeless conditions being successfully treated that he becomes skeptical, a logical reaction, since this sort of hyperenthusiasm is usually associated with the propaganda of quackery. Nevertheless, it would be very unfortunate to have the lytic principle prematurely rejected by all because of conflicting experimental reports and commercial exploitation.

It is well to have uppermost in mind the fact that information gained from a study of reactions in the test tube cannot be translated into the chain of events occurring in the body when the same agencies are at work. d'Herelle was only within the realm of true human experience to dream, as he watched his test tubes, that this agent which when diluted a million fold would lyse countless numbers of germs and increase in potency at the same time, would also dissolve the agents of disease when administered to the infected host. That fifteen years of intensive investigation by thousands of workers has not seen the unequivocal fulfillment of the prediction by d'Herelle does not signify that the bacteriophage is without value in clinical medicine. The weight of evidence is against such a position, however; the reported results have been contradictory and disappointing.

The logical procedure in attempting an evaluation of the various reports would be to scrutinize the several materials employed under the appellation "bacteriophage." It is apparent at once that all sorts of unrelated stuff have been used and the results have been compared. With the exception of certain data appearing from various European clinics, where only within recent years standard phage products prepared under the general supervision of d'Herelle have been used in large quantities, the majority of reports, but by no means all, deal with small individual batches. These have been prepared with no experienced supervision or with materials developed by laboratory workers anxious to gather data on the clinical value of materials previously studied in vitro.

The preparation of the bacteriophage has necessitated the use of bacterial filters, of which there are many varieties and with which the majority of laboratory workers until quite recently have been unacquainted. The object of filtration has been in each case to obtain the lysed culture in a sterile condition, a feat which d'Herelle early recognized as impossible by this technic. To be considered of value for clinical use the only requirement placed on a phage has been that it demonstrate lytic action against some organism in the test tube. Little consideration has been given to its origin, the type of medium with which it is identified or whether the phage is active against the causal agent of the diseases, a quality which may ultimately prove to be unessential. It is apparent then that the so-called bacteriophage is a very complex mixture, one component of which is the lytic principle itself, but the possibility that the other elements present, the nature of which depends on the phage used, may also exhibit biological activity, has rarely been considered. The theory upon which therapy has been instigated has usually been the spectacular nature of the reaction in the test tube.

The claim is made by d'Herelle that by injection of the phage two types of immunity are established: first, an immediate resistance due to the presence in the body of the lytic agent (this lasts only as long as this substance can be detected, a matter of some six hours, and is, therefore, fleeting); and, secondly, a more slowly developing solid type of immunity, which is simply a result of the injection of the products of the killed bacteria, the regular type of acquired antibacterial immunity. It is with respect to the first type of immunity that most clinical experiments have been planned. The general procedure has been to isolate the infecting organism, to test a young broth culture with a known bacteriophage and thus determine its susceptibility to lysis and in the absence of lysis to provide by the method of adaptation a phage of maximal activity against the invading organism. If a satisfactory product, one causing lysis in

high dilutions against the germ in question, is obtained, treatment is instigated. Whether the agent is injected, ingested or applied locally, the object in mind is to duplicate in vivo the spectacular in vitro results, and to date there has been practically no evidence to demonstrate that in vivo lysis does occur even under the most favorable conditions. As a matter of fact, the reports are practically unanimous in their failure to observe early immunity which might be attributed to in vivo lysis. These unsuspected results find a ready explanation in a recent communication wherein the fact is reported that purulent exudates, defibrinated blood and blood serum in addition to bile have a marked inhibitory effect in vitro on the lytic action, but do not destroy it. With purulent exudates, for example, this inhibition is demonstrable even in dilutions as high as 1:1,000. Others have indicated that a concentration of bacteriophage sufficient to cause actual lysis in blood or tissue is probably never reached in ordinary clinical experience.

Various attempts have been made to separate the lytic corpuscles from the other components of the mediums in which they were produced and thus obtain a preparation which could be utilized to demonstrate the presence of attributes other than lysis. To date insufficient quantities of these highly purified preparations have been available for clinical tests, but there is ample in vitro evidence to indicate that they possess the power of stimulating phagocytosis and bacterial dissociation.

Bacteriophage therapy must be interpreted, then, apart from the specific phage content although such a procedure would unquestionably amount to a discarding of its use by many. The real active agent is considered to be the products of bacterial autolysis and the lytic filtrates in reality vaccines, the injection of which stimulates the appearance of the usual bacterial antibodies much more quickly than the ordinary suspensions of dead organisms. Nevertheless, in selecting a phage a potent lytic power should be provided. In the actual employment of the lytic principle in the treatment of specific infections it quite naturally follows that a subcutaneous injection of the agent should be insisted upon to stimulate earned immunity in addition to a local application in an attempt to get lytic action. The same care should be exhibited in selecting the agent even though lysis in vivo is presumably of minor importance. The preparation used should be active against the causal organism in the case proposed for treatment and should be freshly prepared. An intradermal test using 0.05 c.c. of the phage, waiting twenty minutes to determine whether the patient is sensitive to the proteins of the preparation, should always precede treatment.

It is in staphylococcus infections that there has been general agreement that the lytic principle has value, more especially in furunculosis. However, one notes that such a condition is usually self limited with a distinct tendency to self healing. Local application of the phage freshly applied hourly, plus 2 c.c. subcutaneously at a distance, or ¼ c.c. amounts by multiple puncture surrounding the isolated lesion, have been successful. Preparations heated to 75° C. to remove the lytic action when administered in this way have also given favorable results. As is to be expected, one frequently observes a severe local reaction, redness, pain and edema, or even a generalized "protein" shock, chills, fever, vomiting, insomnia, etc., following the parenteral introduction of lytic agents.

In local streptococcus infections the value of the lytic principle is still in doubt. It is clear that in most cases a bacteriophage in the d'Herelle sense has not been available, although several investigators have reported favorable outcomes following the use of a staphylococcus-phage in staphylococcus and streptococcus bacteremia. The lytic agent is administered intravenously plus local applications if lesions exist. In bacteremia, the most recent procedure (MacNeal) is to begin immediately with intravenous injections in divided doses at intervals of about thirty minutes until definite evidence of shock is obtained, ordinarily a chill with sharp rise in temperature, followed by a fall to nearly normal in twelve hours. At the same time the phage is applied to the open wound and injected into the tissues about the local lesion, if any such is in evidence. Intravenous injections of smaller amounts are continued daily for a long period after the initial shock.

One of my colleagues at the University Hospital has been using bacteriophagy under well controlled conditions in B. coli in-

fections of the urinary passages for the past several years and believes it to be an effective method of treatment. He is very cautious to add, however, that in his experience no immunity to subsequent attacks is conferred by bacteriophage sterilization of the urinary tract and in every instance the lytic principle must be active against the invading organism.

CONCLUSIONS

A careful perusal of the rapidly accumulating literature on the clinical use of the bacteriophage can only impress one with the fact that no definite conclusions can be drawn. While the selection of the lytic agent is probably justifiable in instances where other measures are not usable, and should be employed, the procedure should be considered experimental only, hence carefully controlled. There are no data to indicate that bacteriophagy is on a sufficiently sound basis to warrant its unrestrained exploitation or promiscuous use.

TREATMENT OF DIABETIC COMA*

WILLIAM V. VANDER VOORT, M.D.
BATTLE CREEK, MICHIGAN

Few emergencies in the practice of medicine or surgery require more immediate attention than does diabetic coma.

In angina pectoris or in acute appendicitis, the patient may survive without any treatment, but in diabetic coma only one in thousands spontaneously recovers. In our clinic we have never seen a severe case of coma recover without the most persistent and heroic treatment.

An energetic, conscientious and continuous vigil by one fully cognizant of the gravity of the situation, and one well qualified to direct proper therapeutics, constitutes the first and last requisite for successfully combating this preventable misfortune. The element of time is just as important as it is in intestinal obstruction, and the prognosis is in inverse proportion as to the period occurring between the initial onset and the institution of treatment.

Up to the present the pathogenesis of diabetic coma has not been satisfactorily explained. These cases exhibit an acute morbidity and dysfunction of all the body tissues, in which the totality of the life processes is seriously jeopardized. There might also be included in this intricacy a metabolic complex in which the interrelation between the constructive and destructive phenomena of the human machine is interrupted.

No tissue is exempt in these crises, not even the nerve structures. The coma, shock, vasomotor paralysis, cardiovascular-renal syndrome, etc., depicted by unconsciousness, low blood pressure, weak, rapid, thready pulse, hypothermia, dehydration, oliguria or anuria, panting breath, soft eyeball, dilation of the stomach with bleeding into the gastrointestinal tract, and at times hemorrhage in the brain and kidneys, nausea and vomiting, leukocytosis, low alkali reserve, hyperglycemia, acetonemia, glycosuria, acetonuria, etc., are in and of themselves prima facie proof that the patient is moribund. It is a fight for life, and no time should be lost in institution of immediate treatment.

We agree with Drs. Lawrence and Atchley that many of these desperate cases may be saved by injection of large quantities of fluid and insulin, watching closely, however, for any edema that may occur, or for any cardiac embarrassment. We are of the opinion that more of these serious cases are lost by not giving enough fluid and insulin, than is generally believed. However, one certainly would not treat a man seventy years of age the same as he would an infant or a patient twenty years old whose cardiovascular system is sound. Severe hypoglycemia should be avoided in cases with

*Read before the Clinton County Medical Society at St. Johns, Mich., March 24, 1932.

arteriosclerosis associated with myocardial degeneration.

According to Ernstene and Altschule, there is an increased pulse rate and pulse pressure during hypoglycemia. The systolic rose and the diastolic fell. The minute volume output of the heart is increased during hypoglycemia. They therefore conclude that insulin hypoglycemia is associated with an increased amount of cardiac work, which furnishes an explanation of the clinical manifestations of myocardial failure and attacks of angina pectoris in subjects with arteriosclerosis and diminished myocardial reserve. "Insulin angina," or, as Joslin suggests, "hypoglycemia angina," occurring after insulin overdosage or during the third or fourth hour observation of a glucose tolerance estimation ("Ingestion of sugar stimulates the mechanism of its utilization" —Rabinowitch), has on a few occasions caused us considerable anxiety. A depletion of the glycogen supply in the myocardium in an already damaged cardiovascular system may prove disastrous. Therefore, we are convinced through experience that hypoglycemia is not desirable in certain cardiovascular cases and that the fluid and insulin intake should be guarded. Like a desiccated, neglected house-plant, when water is applied osmosis is so rapid that you can actually visualize the filling up of the dry plant structures, manifested by the perceptible movement of the leaves and stalk of the plant. So, in the human dehydrated body, one can feel and see the veins filling out, the shrunken tissues imbibing and reviving, and the feeble compressible pulse reestablishing its fullness.

No case is more spectacular, and nothing gives a man quite the thrill or genuine enjoyment, than to see life returning to these dying patients. We regret to say that even today, with all our knowledge of diabetic coma, and with all of our splendid equipment for treating the same, these dangerous cases, especially when intervention is started late, pass from us, and it is only when the most drastic, intrepid and unswerving treatment is instituted that some of these lives are saved.

Admitting that fluids should be given slowly and cautiously, and that the administration of insulin should be well understood, how many cases have been actually lost from cardiac dilatation or pulmonary edema, from excessive use of normal saline solution, or how many fatalities have been encountered from insulin overdosage, in comparison with those lost by dehydration and insufficient insulin? Diabetic coma, if attacked in its initial stage, usually vanishes before the "Four Horsemen"—Insulin, Salt, Water and Work.

All agree that at the present time we have no exact means of computing the required initial dose of insulin, or the precise amount of fluid to be given. Every case is a law unto itself. The minimum and maximum amount of insulin required for the first 24 hours may vary from 50 units to 1,000 or more. Ten to one hundred units may be the ideal initial dose, given separately or conjointly with 250 to 1,000 c.c. of normal saline or Ringer's solution. The main thing to keep in mind is that the coma must be controlled as quickly as possible, regardless of the amount of insulin and fluid used. The general appearance and age of the patient, the depth and time that the coma has existed, the extent of dehydration, the circulatory and cardiovascular status, and the profundity of shock, etc., together with laboratory findings, will determine relatively the amount of insulin and fluid to be used. In institutional work we have little fear from initial overdosage. These cases absorb water like the sands of the desert, and insulin does not appear to have its usual potency.

Formerly many of our cases have been given entirely too small amount of both insulin and water. This is conceded to have been the mistake by many other men in this field. The fear instilled in our minds, during the pioneer days of insulin, of the great danger of over-dosage, is possibly responsible for the error of under-dosage today. To belittle the possible lethality of insulin overdosage, is not our purpose; but we do want to stress the necessity of sufficient insulin and fluid to control the case.

Before entering into the symptomatology and therapeutics of diabetic coma, it is interesting to review a few contradictory statements regarding the treatment of these cases, which will perhaps explain, at least partially, the hesitancy the general practitioner has in attempting to treat diabetic coma.

A says: "Under no circumstances should

opiates or sedatives be used in the treatment of diabetic coma."

B says: "We frequently use one-fourth grain morphine or some other sedative in our diabetic coma cases."

A: "Under no circumstances should strong physics be given in diabetic coma."

B: "After washing out the stomach, leave two ounces of castor oil, or it may be necessary to use croton oil in some cases."

A: "Always give routinely adrenalin or ephedrin hypodermatically in cases with low blood pressure especially."

B: "Adrenalin is antagonistic and is contraindicated."

A: "We believe that the alkalies (sodium bicarbonates) are decidedly beneficial. Its use appears to shorten the period of acidosis."

B: "Sodium bicarbonate should never be used. It can do no good and can do harm."

A: "All fluids should be given intravenously in the treatment of diabetic coma."

B: "The intravenous route should be used only when all other methods fail."

Many other contradictory statements might be added, but are nonapropos at this time.

That certain types of diabetics are more prone to coma than others, is splendidly epitomized in the following statements by Dr. Joslin: "Coma attacks the young diabetic and the diabetic who is in the first few years of the disease." "Coma is exceptional after the first ten years of the disease." "The fat diabetic can get coma, but it takes gross mismanagement to produce it." In the opinion of Dr. Priscilla White, however, "The overweight diabetic child . . . is more frequently attacked by coma." "It is still the poorer class of patients in whom the incidence of coma is highest." "The adolescent is coma's shining mark."

PREMONITORY SIGNS

There is no distinctive sign of diabetic coma, but whenever a diabetic begins to act, look, talk, or feel peculiar, in any way out of the ordinary, always be suspicious that he has transgressed some diabetic law and should be watched very closely for oncoming coma.

Patients frequently complain of a peculiar, unpleasant taste in the mouth, their appetite is not as good as usual (this is a splendid premonitory symptom), are nauseated and vomit, have vague abdominal discomfort or epigastrial distress. Do not overlook an acute abdominal trouble in these cases, as it is possible that there may be pathology present that is precipitating the coma. At times a diagnosis is extremely difficult, especially if the patient has a fever. Recently we operated upon three cases which were in the pre-coma stage, and found in all acute appendicitis, two gangrenous and one pus appendix. These cases had a slight rise of temperature, a leukocytosis, nausea and vomiting, general abdominal discomfort; all were pre-comatose. In surgical conference the diagnosis was concluded on two points: first, rigidity in the lower right quadrant; second, pain on pressure over McBurney's point. All made an uneventful recovery. We are convinced that in these three cases the appendicitis was the etiologic factor in inducing or expediting the coma. The more quickly the infection is removed, the more easily the coma is controlled. Our policy is to reduce the coma as quickly as possible, then repeat the physical examination. Parenthetically, diabetics are not as poor surgical risks as is generally believed, perhaps very little more than a patient would be of similar age and with similar degenerative changes in the cardiovascular-renal system, providing these cases receive proper care before, during and after surgery.

These patients frequently complain of weakness and pain in legs, want to be left alone in order that they may recuperate, they are listless, not particularly interested in anybody or anything, procrastinate, want to defer everything, are tired all the time—simply cannot get rested. Some have a feeling or fear of impending calamity; some are very nervous and at times even hysterical; others are very drowsy, sleepy and apathetic. Frequently there is a headache, backache, and some complain of chest pain. Râles are frequently found on physical examination of the chest. At times there is a vertigo or tinnitus-orium. Vision is sometimes capricious—good today and poor tomorrow. This is generally considered to be due to the laws of osmosis and concentration. The higher the concentration of sugar in the media, the greater the osmosis into the lenses, thereby increasing their volume with resultant myopia. With lower blood

DIFFERENTIAL DIAGNOSIS OF DIABETIC COMA AND HYPOGLYCEMIC COMA

CAUSES

Diabetic Coma	*Hypoglycemic Coma*
1. Indiscretion in diet, as—overeating or starvation. In starvation "the ketogenic bodies resulting from the catabolism of body protein and fat are in excess of available CHO." (Joslin)	1. Overdosage of insulin.
2. Omission of insulin.	2. Omitting meals.
3. Infections.	3. Vomiting or diarrhea with failure of food absorption.
4. Experimentation, carelessness, ignorance and foolishness.	4. Delay in serving meals.
5. The non-trained and improperly educated diabetic patient.	5. Overdosage of insulin from treating diabetic coma.
6. Vomiting and diarrhea.	6. Increase in tolerance due to properly balanced diet, removal of infections, etc.
7. Parturition.	7. Miscalculated diet, errors in substitution, etc.
8. Ether or chloroform anesthesia.	8. Insulin injections too frequently repeated.
9. Physical or mental shock.	9. Excessive exercise, etc.
10. "Any condition that interferes with glycogen metabolism may induce coma." (Joslin)	

DIFFERENTIAL SIGNS AND SYMPTOMS

1. Patient acts, looks, talks or feels peculiar—*progressively.*	1. Patient acts, looks, talks, or feels peculiar—*suddenly.*
2. Loss of appetite *progressively.*	2. Hunger—*suddenly.*
3. Nausea and vomiting as a rule.	3. Nausea and vomiting rare.
4. Kussmaul breathing.	4. Breathing normal or shallow.
5. Skin dry.	5. Skin moist.
6. Coma *gradual.*	6. Coma *sudden.*
7. Abdominal distress (practically always present).	7. If abdominal distress is present, it is not outstanding.
8. No convulsions.	8. Convulsions may occur.
9. See Premonitory Symptoms.	9. Ravid summarizes the symptoms of Hypoglycemia as follows: "Sensation of hunger, languor, weakness, pallor or flushing of face, perspiration, glazed or mask-like facies, numbness, tingling, or other paresthesias in limbs or lips, diplopia, nystagmus, tendency of pupils to dilate, tinnitus aurium, dysarthria, dysphagia, motor weakness, hemiparesis, incoördination, changes in reflexes, twitchings, convulsions, confusion, emotional instability, delusions, obsessions, hallucinations, maniacal outburst, aphasia, total or partial amnesia of reaction in constant change in pulse rate, heart action, blood pressure and even temperature."

LABORATORY FINDINGS

URINE

1. Sugar present.	1. Sugar absent in second catheterized specimen.
2. Acetone—plus.	2. Acetone—zero or trace.
3. Diacetic acid—plus.	3. Diacetic acid absent.
4. Albumin (small amount). Blood cells and casts may be present.	4. Albumin (traces to none).

BLOOD

1. High blood sugar.	1. Low blood sugar.
2. Plasma CO_2 combining power below 20 volumes per cent.	2. Plasma CO_2 normal.
3. Non-protein nitrogen above normal.	3. Non-protein nitrogen normal.

THERAPEUTIC TEST

Rapid improvement with administration of insulin. Time required—a few hours.	Rapid improvement with administration of glucose (5 to 10 per cent glucose may be given intravenously, subcutaneously or by rectum). Time required—a few minutes. In exceptional cases some hours may be required.

sugar concentration, osmosis is from the lenses, thereby decreasing their antero-postero diameter with resultant hyperopia. Recently we had a case in our clinic who said that he had seven pairs of glasses. Every morning upon arising he would try on each pair, and the one that gave him the best vision he would wear for that day.

Coma may be ushered in very insidiously, covering periods of days or even weeks, before any marked symptoms are presented, or it may occur very suddenly and abruptly, with few or no premonitory signs. It is well to remember that the mild beginning case is in no way exempt from the most fulminating type, and it is encouraging to know that the old diabetic seems to establish a certain immunity against coma. Any illness whatever in a diabetic has coma potentialities.

A diagnosis may be very difficult in those cases in which we are unable to secure a proper history. Nephritis, cerebral hemorrhage, meningitis, fracture of the skull, insulin coma, etc., should be thought of. The accompanying table is a differential diagnosis between diabetic coma and hypoglycemic coma.

SYMPTOMATOLOGY AND CLINICAL MANIFESTATIONS OF DIABETIC COMA

If the following clinical and laboratory data are carefully observed, one should encounter little difficulty in concluding a diagnosis of diabetic coma:

General Condition: (1) History (if you are able to get one) of progressive coma. (2) Nausea. (3) Vomiting (vomitus may contain blood). (4) Restlessness. (5) Abdominal distress. (6) Tympanitis. (7) Polydipsia. (8) Chest pain. (9) Hyperpnea. (10) Drowsiness. (11) Feeble, rapid pulse. (12) Low blood pressure. (13) Hypothermia. (14) Marked dehydration. (15) Parched tongue. (16) Dry skin and hair. (17) Soft eyeball. (18) Impaired vision. (19) Constipation. (20) Acetone breath. (21) Oliguria or anuria. (22) Reflexes may be diminished or absent. (23) Veins empty. (24) Many symptoms simulating uremia and shock with a vasomotor paralysis or a general collapse with circulatory and cardiac embarrassment.

Type of Breathing and Expired Air: (1) Low alveolar CO_2 tension. (2) Plus acetone in expired air. (3) Odor of acetone on breath. (4) Kussmaul breathing. This type of breathing is, with but few exceptions, pathognomonic.

Urine: (1) Sugar. (2) Acetone. (3) Diacetic acid. (4) Albumin (small amount as a rule). (5) Casts. (6) Blood cells. (7) High specific gravity. (8) Increased total solids. (9) There may be present an oliguria or anuria.

Blood: (1) Hyperglycemia (above 350 mgms. per 100 c.c. of blood). (2) Acetonemia. (3) Low alveolar CO_2 tension or combining power of the blood plasma. (4) *Gradually increasing nitrogen* retention. (5) Leukocytosis. (6) May be *increased* cholesterol.

TREATMENT

All cases should be hospitalized if at all possible. Here proper laboratory facilities are available and the necessary apparatus for intravenous medication, etc., is accessible; also patient or some responsible friend may receive sufficient diabetic instruction to at least prevent an immediate relapse.

(A) If you are fairly certain that you are dealing with frank diabetic coma and patient is an *adult,* completely comatosed and dehydrated, secure sufficient blood for a chemical study of sugar, CO_2 combining power of the plasma, non-protein nitrogen, cholesterol, chlorides and blood culture. If transfusion is considered, it is also advisable to have the blood typed and a regular count made at this time. It is by no means imperative that all of these tests be made in order to institute immediate and appropriate treatment. Frequently the Folin's micrometer method of sugar estimation is used exclusively, especially in children, but at times we may be deprived of this valuable calculation, and treatment must depend entirely upon urinary analysis, together with the clinical signs and symptoms.

With needle *in situ,* inject 50 units or more of insulin. Immediately instruct nurse to give a saline enema, temperature 105 to 110°, each pint of water to contain two level teaspoonfuls of sodium chloride; one to two quarts of water is usually sufficient at this time. Physics are not recommended, especially at this stage. A more thorough study of the case must be made before any laxative or cathartic is given, if administered at all.

Patient must be well covered and gotten warm as quickly as possible, placing several hot water bottles outside of first blanket (remembering that your patient is unconscious and that a diabetic burn may become a very serious complication). If nausea and vomiting obtains, stomach should be washed out very cautiously and carefully.

Not over thirty minutes should be required to secure sufficient laboratory data to proceed with treatment "B."

(B) Should laboratory findings reveal an elevated blood sugar and should there be a low alveolar CO_2 tension with plus acetone in expired air, inject intravenously 500 to 1,000 c.c. of Ringer's or normal salt solution, containing 25 to 50 grams of glucose with 50 units or more of insulin. One hour should be consumed in the intravenous administration of 1,000 c.c. solution. Subcutaneous insulin is given conjointly with this procedure, the amount depending en-

tirely upon the case at hand. It is not absolutely necessary to protect patient against insulin with glucose, neither should the intravenous route receive priority over hypodermoclysis in many cases. If the patient's age is within the "sclerotic zone," it has been our custom in the past to give one ampule of caffein sodium benzoate. Recently this drug has been questioned, in that it actually may cause the discharge or removal of glycogen from the heart muscle, which is certainly undesirable in these cases. Myerhof, Hartree, Hill, Long, and others, have demonstrated that caffein quickly produces the maximum amount of lactic acid from glycogen, both in the skeletal muscles and in the mammalian myocardium. There is depletion of the glycogen content of the heart muscle with the maximum accumulation of lactic acid. In our last four cases we have not used caffein as formerly, but have depended upon intravenous infusion of saline and glucose solution for cardiac stimulation. If the blood pressure is extremely low, associated with impending vasomotor collapse, 0.5 to 1 c.c. of 1/1000 solution of adrenalin is administered. This may be repeated when necessary.

Do not neglect the cardiovascular-renal system. Keep in mind the treatment of shock. Be on guard for a distended bladder or a dilated stomach. If, in this early stage, you have a fever, search carefully for some acute pathology—an abscess, mastoiditis, otitis-media, appendicitis, pancreatitis, etc., etc.

Frequently treatment "B" is started a few moments after the arrival of the patient, providing we secure a reliable history with the classical symptoms of diabetic coma, with Kussmaul breathing and low alveolar CO_2 tension and plus acetone in the expired air, together with a glycosuria and acetonuria. (In these emergency cases, the alveolar CO_2 tension has proven to be a reliable index for beginning treatment and is a great time saver.)

Treatment "B" may be repeated several times in the first 24 hours, depending entirely upon the severity of the case. Usually, however, after the first or second treatment, clinical improvement is observed.

In these cases of marked dehydration, fluids must be supplied by some route—mouth, stomach-tube, retentive enema, continuous Murphy drip, hypodermoclysis, intravenously, or intraperitoneally.

Blood chemistry, expired air study, urinary analysis, etc., should be made every hour or two, especially during the critical stages of coma. It may be necessary to use an indwelling catheter. Too much precaution cannot be exercised in this procedure, as an infection in the genito-urinary tract may cause you much concern. Be sure that the bladder is completely emptied at each catheterization. Should some of the urine be retained from the former period, the Benedict's or Folin's reaction will be misleading.

(C) An unfavorable laboratory report does not necessarily preclude a general improvement of the patient. Frequently we have seen the Kussmaul breathing and unconsciousness disappearing before there is an increase in alveolar CO_2 tension or a decrease in acetone or blood sugar. After improvement is evident, hypodermic injections of insulin every thirty minutes to three hours or even longer intervals, dosage 5, 10, 15, 20 or more units, is the treatment of choice.

The following data will assist in establishing the status of patient, as well as serve in approaching the relative interval and dosage of insulin:

1. Any sign of general improvement.
2. Restoring of normal breathing.
3. Subsiding of nausea and vomiting.
4. Returning to consciousness.
5. Lessening of dehydration.
6. Declining hypothermia.
7. Increasing eyeball tension.
8. Slowing of the pulse rate.
9. Returning of reflexes (diabetics not in coma frequently have absence of reflexes).
10. Increasing blood pressure.
11. Reëstablishing strength and fullness of pulse.
12. Symptoms of shock disappearing.
13. Decreasing abdominal distress.
14. Diminishing acetone breath.
15. Rising alveolar CO_2 tension or combining power of the blood plasma.
16. Acetone in urine, and expired air decreasing.
17. Increase in the output of urine.
18. Lowering of the specific gravity of the urine.

19. Disappearing of albumin, blood cells and casts, if present.

20. Decrease in total solids of urine.

21. Lowering of sugar in blood and urine.

22. Non-protein nitrogen decreasing, if increased.

23. Diminishing leukocytosis.

A reiteration of two formerly included statements is at this time appropriate: (1) There may be a decided amelioration of clinical symptoms prior to an improvement in laboratory findings. (2) The amount of insulin, salt, glucose, and stimulation used, and the interval of administration of the same, depend entirely upon the individual case. *No one knows the dosage of insulin in severe diabetic coma.*

With signs of vanishing coma, with blood sugar under 250 mgms. per 100 c.c. of blood, the interval and dosage of insulin should be more carefully guarded.

(D) This is a very important and critical stage in the treatment of these cases. As soon as the patient is able to swallow, retain and absorb, great care should be exercised in not overloading the already badly crippled stomach. Vomiting of blood is quite frequent, dilatation of the stomach is not uncommon. There is a complete upset in the whole gastrointestinal tract. Therefore, any food given should be a liquid, bland, non-irritating, easily assimilated.

One-half to one glass of strained orange juice, hot broth or strained oatmeal gruel, etc., at appropriate intervals, is excellent. *No fats or protein are permitted the first twenty-four to forty-eight hours.* If patient is capable of utilizing 75 to 100 grams of carbohydrate the first twenty-four hours, we are gratified. A few glasses of orange juice or ginger ale will accomplish this. For many years it has been our practice to adhere as closely as possible to the basic foods, as they tend to increase the hydroxyl ion concentration of the blood, which is a great asset both in the prevention and treatment of ketosis.

In conclusion: under no circumstances should these cases be permitted to leave the hospital until they have been taught at least a superficial working knowledge of the diabetic regime. Now is the opportune time to instill diabetic dietetics, ketogenic and antiketogenic principles, urinary analysis, symptoms and antidote of insulin reaction, and at least a few rudimentary indications of oncoming coma.

Should the above treatment fail to control coma, blood transfusion may be attempted, as Atchey, Ross, and others report very gratifying results from this procedure, especially in overcoming shock with vasomotor collapse.

SUMMARY

(1) Diabetic coma is an emergency which demands an immediate, heroic, uninterrupted, and personally supervised treatment.

(2) The alveolar CO_2 tension estimation is invaluable as a time saver, and is a reliable index for the institution of immediate treatment.

(3) The basic foods excel in the prevention and treatment of coma.

(4) Factors that tend to increase the hydrogen ion concentration of the blood should be carefully searched for and eliminated, if possible.

(5) All foci of infection should be removed as quickly as patient's condition will permit.

(6) In desperate moribund cases we believe that the mortality percentage can be greatly reduced by the careful administration of larger quantities of fluid and insulin, dosage depending largely upon age and condition of the cardiovascular system.

(7) The initial and subsequent dosage of insulin is unknown, as every patient is a law unto himself, but enough must be given to control the coma, regardless of the amount used.

(8) Coma, if taken in time, usually vanishes before the "Four Horsemen"—Insulin, Salt, Water and Work.

(9) As soon as the oral administration of food is tolerated, very easily absorbed, non-irritating and well strained liquids, in small amounts, at not too frequent intervals, should be given, eliminating as nearly as possible, at least for the first twenty-four to forty-eight hours, *fats* and *proteins*.

(10) No patient should be permitted to leave the hospital until he has been instructed in rudimentary diabetic dietetics, urinary analysis, and at least a few symptoms and preliminary treatment of coma and insulin reaction.

BIBLIOGRAPHY

Anderson, K. W.: Hyper-leukocytosis in Diabetic Coma. Minn. Med., Jan., 1930.

Atchley, Dana W.: Medical Shock. Jour. A. M. A., Aug. 9, 1930.
Best, C. H.: Brief Review of Certain Physiological Properties of Insulin. Canadian Med. Ass'n Jour., Aug., 1930.
Bowen and Hekimian: Diabetic Coma—A Report of 81 Instances. Annals Int. Med., May, 1930.
Dobbs and Robertson: Relation of Aceto-Acetic Acid and the Cause of Death. Lancet, April 19, 1930.
Dunn, F. Lowell: The Variability of Insulin Hypoglycemia. Nebraska State Med. Jour., June, 1931.
Ernstene and Altschule: The Effect of Insulin Hypoglycemia on the Circulation. Jour. of Clinical Investigation, Aug., 1931.
Foster, Nillis B.: Insulin: Its Uses and Misuse. Jour. A. M. A., June 21, 1930.
Fullerton, Lyall and Davidson: The Treatment of Diabetic Uremia with Hypertonic Glucose Solutions. The Lancet, March 12, 1932.
Harrop, George: Hypoglycemia and the Tonic Effects of Insulin. Arch. Int. Med., July and December, 1927.
John, Henry J.: Diabetic Coma. Jour. A. M. A., Aug. 10, 1929.
Joslin, Elliott P.: An Appraisal of the Present Treatment of Diabetes. Jour. A. M. A., Aug. 29, 1931.
Joslin, Elliott P.: Treatment of Diabetes Mellitus. Text Book.
Joslin, Root, White, Jordan and Hunt: Diabetic Coma. Medical Clinics of North America, January, 1932.
Lewrance, R. D.: The Treatment of Desperate Cases of Diabetic Coma. Brit. Med. Jour., April 12, 1930.
McCarthy, Donald: Clinical Signs and Treatment of Diabetic Acidosis. Minn. Med., March, 1928.
Ross, Fred E.: Abolishing Coma in Diabetics. Penna. Med. Jour, March, 1931.
Wade, Preston A.: Dextrose—Insulin Treatment of Shock. Jour. A. M. A., June 9, 1928.
White, Priscilla. Diabetes in Childhood and Adolescence. 1st Ed. Philadelphia: Lea & Febiger, 1932, page 114.

SOME PHYSICAL AND SOCIAL ASPECTS OF MALNUTRITION IN SCHOOL CHILDREN

JOHN GEORGE SLEVIN, B.Sc., M.D.†
DETROIT, MICHIGAN

Those of the medical profession who examine many children in our metropolitan schools have observed that the undernourished child constitutes a real medical problem, the magnitude of which may be realized when we recall that there were 5,000,000 cases of malnutrition in children in the United States in 1930.

Realizing that this phase of child health is influenced by present day social upheavals, the author studied the relationship of malnutrition to physical defects and the bearing of the economic depression upon the nutrition of school children.

This survey, conducted in three city of Detroit schools, comprised the examination of 1,140 children. Each child was given a physical examination and parents were questioned concerning the child's health habits and the social status of the family.

"To be exact in the modern usage of the term," states Perlman, "good nutrition should imply not only proper weight, but the absence of physical disabilities as well as the presence of adequate musculature as determined by physical examination."

The classification of malnutrition used in this survey is based chiefly on clinical observation, weight being only a secondary factor. The clinical criteria which, if present, placed a child in the undernourished group were: lack of muscular turgor, pallor, lack of adipose tissue, signs of circulatory stagnation and underweight. Accordingly, a child 2 to 15 per cent below the standard weight, free from the above clinical criteria, was classified as underweight, and a child 10 per cent or more underweight, having two or more of the above clinical signs, was considered to be malnourished. All other children examined are referred to as the average group.

Malnutrition was determined on the basis of clinical findings rather than by various measurements and mathematical formulæ, because these latter standards are still in the experimental stage. Furthermore, as Harris aptly says, "so vast yet autonomous a process as growth in the child cannot be solved by anatomical studies of form (girth-chest measurements, etc.) any more than by mass statistics of height and weight."

In this survey, 1,140 children between five and fourteen years of age were examined. Of this number, 122 children, or 10.7 per cent, were malnourished, and 85 children, or 7 per cent, were underweight. The average group had 659, or 70 per cent, with demonstrable physical defects as compared with 89 per cent for the undernourished and 75 per cent for the underweights. Detroit Department of Health figures for 1931 show that of 56,656 elementary school children examined by school physicians, 58.7 per cent of them had physical ailments, and that of all children examined, 6.1 per cent were malnourished. Thus, this special group showed nearly five per cent more malnutri-

†Dr. Slevin is a graduate of the University of Detroit, 1925, B.Sc.; St. Louis University, 1929, M.D.; Intern, Grace Hospital, Detroit, 1929-1930; member School Health Service, Detroit Department of Health, 1930, 1931; Member Staff Grace Hospital; general practice in Detroit since 1930.

TABLE I. PERCENTAGE WITH PHYSICAL DEFECTS BY GROUPS

Total Examined	Malnourished	Underweight	Total with defects	Average with defects	Malnourished with defects	Underweights with defects
1140	122	85	866	659	109	64
	10.7%	7%	75.9%	70.6%	89.3%	75.2%

tion and about one quarter more children deficient physically, than for the city at large.

Perusal of Table II brings to light some interesting findings. There are seven per cent fewer underweights and 15 per cent more malnourished who have diseased tonsils than in the average group; the latter having 36.4 per cent with this defect. Adenoid enlargement is found one-tenth more frequently in the malnourished than among the average children. Dental caries occur about as frequently in all three divisions, and is the chief deficiency observed. Dental surgeons explain this on the basis of an unbalanced diet, claiming that most children have too high a carbohydrate intake. Among the malnourished, anemia is the most pronounced physical defect, being observed in 68 per cent of this group, while the underweights number 18 per cent of their group as anemics, and the average children show nearly 8 per cent.

Cardiac abnormalities were found three per cent more frequently in the undernourished group than among average children; the percentages for the two groups being, average, 2.1 per cent and malnourished 4.9 per cent; while the underweights were entirely free from any heart defects. Evidence of thyroid hyperactivity occurred in about two per cent of the average, one per cent of the underweights and in four per cent of the undernourished.

To summarize, then, we find that every region examined, except the teeth, demonstrated that malnourished children had decidedly more physical defects than either the average group or the underweights. In order of frequency, these defects are (1) anemia, (2) tonsils, (3) teeth, (4) adenoids, (5) heart, (6) thyroid. Anemia was present 60 per cent more frequently in these malnourished children than among the average group. This is not surprising when it is recalled that under average children are derelict in partaking of fresh green vegetables, milk and eggs; that many of them shun outdoor play; and that they do not get sufficient sleep. In brief, most undernourished children are anemic because of poor health habits and focal infections.

By way of contrast, the underweights have fewer physical defects, with the sole exception of anemia, than either of the other two groups. The better health record of underweights is probably due to the greater care these children receive. More of this group have focal infections treated than do the average or the malnourished children. Many of these underweights represent children of the linear type build and, for the most part, so-called below standard weight is normal for them.

TABLE II. PHYSICAL DEFECTS ACCORDING TO GROUPS

Defect of:	Total Examined		Average		Underweights		Malnourished	
	number	per cent	number	per cent	number	per cent	number	per cent
Tonsils	428	37.5	339	36.4	24	29.4	65	53.2
Adenoids	108	9.4	78	8.3	7	8.2	23	18.8
Teeth	612	53.6	505	54.1	41	48.2	66	53.2
Anemia	171	15.0	72	7.6	16	18.8	83	68.0
Heart	26	2.2	20	2.1	0	0	6	4.9
Thyroid	28	2.4	22	2.3	1	1.0	5	4.0

It is believed that diseased tonsils have a detrimental effect on the general health. This theory has been substantiated by Kaiser, who recently reported his observations of 4,400 children over a ten year period. Half of these children had tonsillectomies and the other half did not. His observations confirm the impression that focal infections have a direct bearing on malnutrition. He says that when large groups of tonsillectomized children and children without tonsillectomy are compared as to their nutritional status, it is found that more than ten per cent of the non-tonsillectomized children are malnourished. Perlman, after his study of 400 malnourished children, is prompted to say that focal infection is one of the common causes of malnutrition. And Rosenberg states, "that if a thorough enough study of the children suffering from malnutrition was made, the great majority would show a disease or defect somewhere in the body responsible for the condition."

ANOREXIA AND NUTRITION

What is the relationship of anorexia and nutrition? This investigation shows that ninety-two of 207 children had either a poor or only fair appetite for vegetables, fruit or milk. Fifteen of the ninety-two had no other physical defect. Seven of these fifteen were malnourished. Twenty of 112 with good appetites had no physical defects, and five of these twenty were malnourished. To put it more succinctly, 78 per cent of those with anorexia were in the malnourished group and 17 per cent with anorexia had no other physical defects. Conversely, 59 per cent of the malnourished had poor appetites and only 0.5 per cent of the malnourished had no other defect than anorexia.

While ninety-two of these 207 underaverage children suffered from anorexia, yet information furnished by parents revealed that 170 of them ate poorly of vegetables, fruit and milk. This means that 44 per cent did not *desire* food and 82 per cent did not *get* a sufficient amount of foodstuffs.

What bearing did the present depression have on these 82 per cent not obtaining sufficient food? It was found that 23 of the 67 malnourished who did not get enough to eat were from families where the wage earner was unemployed. These same 23 children had good appetites. Therefore, one-third of all malnutrition in this group is traceable to social condition, *i.e.*, an inability to get sufficient food for bodily needs.

It was found that many parents considered flesh foods to be the most essential article of diet. Rosenberg states that the undernourished child is one who consumes large quantities of flesh foods and comparatively little milk, cereal, fresh fruit, and fresh vegetables. He placed 25 undernourished children on a special diet containing these neglected foodstuffs. As a result, the experimental group increased 32 per cent in weight and 24 per cent in height over the control group. As Metzger says, adequate diet alone will not suffice to cure all cases of malnutrition, yet it is a very important factor.

MALNUTRITION AND SOCIAL STATUS

In the fall of 1931, when this survey was undertaken, we were in the throes of the economic depression. The question arose as to what bearing unemployment had on the problem of malnutrition. Hence, an inquiry into the social status of all these malnourished children was made.

In the three schools where this survey was conducted, there were 1,420 families. Of this number, 253 heads of families, or 17.8 per cent, were unemployed. In comparison, there were seventy-four malnourished children from sixty-seven families where the bread-winner was unemployed. That is, there were 60 per cent of these undernourished children from families which were victims of the depression; whereas, 27 per cent of all the unemployed parents in these districts had malnourished children. After evaluating these figures, we are justified in concluding that about one-third of the malnutrition observed in these children is primarily due to economic restrictions caused by the present depression. The other two-thirds is due to other causes, chiefly physical defects.

While these conclusions are assailable on the ground that two-thirds of the unemployed families had children who were not classified as malnourished, yet a great many children were observed who could have been classified as slightly undernourished according to Perlman's standards. These children were excluded from the picture to avoid confusion. If the beginning and borderline cases were included, the majority of chil-

dren of unemployed parents would be listed as malnourished. This is borne out by the report of the Detroit Board of Health, that malnutrition has risen from six per cent as of 1931 to 18 per cent in the fall of 1932.

What is the past record of these malnourished children as to their nutritional status? Seventy-seven of these 122 children were found to have school health records of more than one year's standing. The others were new to the Detroit Public Schools and had no records.

Of these seventy-seven children, sixty-four of them, or 83 per cent, had demonstrable physical defects during their school careers. Twenty of them, or 26 per cent, were not malnourished before 1931, and twenty-four others, or 32 per cent, were malnourished in both 1930 and 1931. The records show that fifteen children, or 19 per cent, were undernourished since 1929; while only eighteen, or 23 per cent, gave a history of nutritional deficiency which antedates the first year of the depression, *i.e.*, 1929. This latter group of eighteen children represents those whose malnutrition is attributed chiefly to other than economic causes, primarily physical defects of the focal infection type.

This is no simple problem in which we can lay a finger on a single factor and say, "that is the cause." Neither economic conditions nor physical defects can be considered the sole cause of malnutrition, but, by combining the two factors of physical defects and economic privation, there is sufficient reason for any of these children to suffer a nutritional breakdown.

Statistical studies, such as this, are valuable only when properly interpreted and when we remember that their application is limited. Keeping these points in mind, five general conclusions may be drawn from these observations: (1) that 10 per cent of school children were malnourished and 7 per cent were underweight; (2) that the malnourished had more physical defects than either the average or underweight children; (3) that anemia was the chief defect among the poorly nourished children; (4) that anorexia and focal infections were important factors in this problem; and (5) that one-third of the malnutrition in this group is closely related to the present economic depression.

Faced with these conclusions, what is the remedy? It is beyond the scope of this article to discuss what should be done to cope with this problem, any further than to indicate, in a general way, the line of attack. It appears that the solution is primarily educational. It is a matter of preventive medicine just as much as is the eradication of diphtheria or smallpox. Hence parents must be told something about nutrition in terms of food values; child psychology in the matter of eating; how necessary it is to correct defects that harbor focal infection, etc. Private physicians must be enlisted to combat this physical ailment, just as they have aided in the attack on tuberculosis. County medical societies can render singular service by giving publicity concerning the extent to which malnutrition has spread among school children, as well as by furnishing qualified speakers to address parent meetings in the various schools. A program along these lines should be fruitful in reducing the high incidence of poor nourishment among American children.

BIBLIOGRAPHY

1. Perlman, H. H.: Med. Jour. and Rec., 130:148, Aug. 7, 1929, Aug. 21, 1929.
2. Lucas, W. P., and Pryor, H. B.: Am. Jour. Dis. of Child., 41:249-261, Feb., 1931.
3. Schultz, F. W.: Jour. A. M. A., 94:73, Jan. 11, 1930.
4. Kaiser, A. D.: Am. Jour. Dis. of Child., 41:568-581, March, 1931.
5. Harris, H. A.: Lancet, 220:691-698, March 28, 1931.
6. Metzger, H. C.: Jour. Mich. State Med. Soc., 29:896-898, Dec., 1930.
7. Rosenberg: Am. Jour. Dis. of Child., 41, 303-336, Feb., 1931.

A. M. A. FELLOWSHIP BENEFITS

The Journal of the American Medical Association is one of the benefits of Fellowship.

During the past year The Journal has given its readers that notable series on "The Vitamins" which alone makes a book of over 200 pages. The "Queries and Minor Notes" section will have published terse, authentic answers to more than 700 questions that concern the everyday practice of medicine. With the original articles, editorials, abstracts, news and other material, you will have a total of almost 4,500 pages for the year. The cost figures less than 1/6c per page.

During the coming year, The Journal will have as great, if not greater, value. For, despite general conditions, the clock of medical progress has not stopped nor even slowed down. The Journal will reflect every important development in medicine during 1933.

Send to the State Secretary for a Fellowship application blank. The annual dues are $7.00 and include a weekly copy of this valuable journal. If you are a subscriber send for the application blank to transfer to fellowship status. The cost is the same. This will be your most profitable and helpful 1933 investment.

GYNECOLOGICAL SYMPTOMS OF THE MALADJUSTED WOMAN

B. W. MALFROID, M.D., F.A.C.S.†
FLINT, MICHIGAN

For years surgery has been under the domination of the anatomists and pathologists. Surgical procedures have been based on physical findings that deviated from an accepted norm. Physiology is gradually assuming the prominence due it. The surgeon of today is interested not alone in the correction of anatomic deviations and the removal of pathologic debris but in the restoration of normal function as well.

It is my belief that there are many emotional causes for gynecological complaints, and that an understanding of these emotional factors is of primary importance in the successful handling of patients. We cannot make a diagnosis of "neurosis" and absolve ourselves from further responsibility.

Socially man has evolved through many successive types of living. He has lived in trees, in caves, as a nomad following pasturage for his flocks, and in simple agricultural communities. Since the industrial revolution ever increasing numbers have been herded together in crowded manufacturing centers; living under crowded, shifting conditions. In his upward climb he has evolved new physical structures, new ways of living and new emotional responses that are representative of the cumulative experiences of mankind. He has received as a portion of his inheritance emotional responses that make his adaptation to present society difficult.

Man owes his present status to the fact that he has learned by conscious acts to control, at least in part, his environment. He has learned to protect himself from his enemies—be they beasts, plants, adverse elemental changes or other men. Because of mind he has learned to control and direct natural laws. By a study of comparative anatomy, physiology and pathology he has learned about disease processes and has been able to gradually assume control of his organic self.

But it is only in the past half century that man has seriously begun the study of his emotional life. We shy from studying our instinctive responses by comparison with lower forms, but in time we may be able to *so far submerge* our egos as to allow a careful analysis of comparative emotional inheritances and recognize the basic etiologic factors at work. We can then set about, with our equipment of consciousness, to direct our emotional forces along constructive lines.

Since humans first combined for mating and protection, woman's sphere in society has undergone marked changes. Her first and most important contribution to humanity was her reproductive function. The wealth of a family, tribe or nation depended on numerical strength, and offspring were of paramount importance. Because of the long period of gestation and dependence of the child upon its mother, the woman was somewhat incapacitated and needed the protection of man if she and her young were to survive. Because of woman's dependence on man she fell under his domination to such an extent that her primary sexual impulses were obscured. Her sexuality is no longer a simple physiologic response to a gonadal drive. When she wishes special consideration she has learned by years of social experience to trade with her sexuality as her most effective weapon. She may trade her physical capacity for protection, food, shelter, clothes, luxuries or even social position. Later in the marital state she may withhold herself consciously or unconsciously as evidence of her disapproval.

The woman who is unable to adjust herself to the conditions of life under which she is living often finds escape from her emotional difficulties in illness. The form of illness is often connected with the genital tract. This type of illness will secure the greatest amount of sympathy or most effectively demonstrate what she has suffered as a result of her husband's lack of consideration. Many a mother has kept her entire family in subjugation by invalidism due to real or imaginary childbirth injuries.

†Dr. B. W. Malfroid, University of Michigan 1918, was Lieut. U. S. N. R. F., 1918-19, did post-graduate work in 1919-20. His practice is limited to gynecology and obstetrics, at Flint, Michigan.

As society becomes more complex women's fertility is less important. Excessive childbearing is often more of a handicap than an asset and the problem of avoiding pregnancy is the source of constant emotional strain for the husband as well as the wife. The support of an ever increasing family still falls on the father's shoulders. Under the pressure of customs applicable to a former civilization, society forbids the dessemination of sane contraceptive information and condemns people to futile, haphazard, bootleg methods that are productive of much harm. Many women are sacrificed each year as a result of criminal abortions, that could have been avoided if proper contraception were taught. The number of families wrecked each year by excessive childbearing or the fear of repeated pregnancies can not be estimated. Many women who present themselves at physicians' offices with various gynecological complaints are those who are using illness as an escape from repeated pregnancies or are suffering from the ill effects of unsatisfactory sexual experiences brought on by improper contraceptive methods or ignorance of what constitutes a complete sexual response.

As woman has risen in the social scale she is demanding, and rightfully, the right to her individuality. She is more than a reproductive complement to man. Sex must mean more to her than the means to economic security. If to a man sex meant pain, discomfort and pregnancy without compensating satisfaction to his erotic needs, would he be satisfied? Woman's sexual needs and response are not identical with man's. Man must learn that woman's sexuality is less direct. It is a more diffuse part of her whole emotional life. Sympathy, intellectual stimulation, emotional compatibility are all necessary to complete her sexual life. Mating comes to her as a response to a general harmonious feeling of well-being rather than as the result of a specific erotic stimulation. It is only with difficulty that man, with his desire for relief of distended seminal vesicles, can comprehend this totality of the sexual life of woman. The fundamental difficulty in man's understanding of the emotional life of woman is that he resorts to the opinions of other men, who interpret women's reactions in terms of their own desires. The average man has obtained his knowledge of sex from his own unanalyzed instinctive urges and the erotic flights of imagination so prevalent in the atmosphere of the latrine. If we are to learn about women's responses we must refer to the things that women have to say about themselves.

In the animal kingdom the female allows the male to approach only when she is in heat. Man and certain species of monkeys alone expect the female to accept his advances at all times. To the female of the human as well as other animals the sexual urge comes in cycles and these cycles correspond to the times when pregnancy is most likely to occur. Man cannot expect to find in the normal woman the same frequent intensive urge he experiences and since monogamy is the standard set by our social structure he must learn to recognize sexual differences and make suitable adjustments.

It is very difficult, at times, to determine whether the basis of a group of symptoms presented is emotional or physical. Many women present a background of emotional maladjustment and physical deviations as well. However, evidence of passive congestion in the genital tract is always suggestive of marital maladjustment and in such cases effort should be made to seek out the emotional factors involved.

One of the commonest gynecological complaints is that of dysmenorrhea. The discomfort complained of shows the widest range of variation. Physically these patients may present no appreciable deviation from the normal anatomy. Others may show many pathological changes without ever complaining of discomfort. In the individual who has had a dysmenorrhea since adolescence it is well to inquire into the family history. We may find that mother, sisters, and even grandmothers all had similar experiences and the case in question is simply following out the family pattern. The patient may have had no instruction as to the physiology of menstruation and the first occasion came with slight discomfort but without warning and was productive of much fear and apprehension. The explanation given may have been extremely meager or inhibitive in type and the whole process shrouded in mystery and listed among the taboos. To such a patient is it not natural that the slight amount of physical and emotional depression normally occurring at such times should be exaggerated to the point of

almost becoming an obsession? Dilation of a cervical stenosis, the correction of a malposition or even an elaborate plastic operation upon the cervix may be followed by a disappearance of the symptoms but often the results so recorded have been produced more by the emphatic assurance of the surgeon than by his technical surgical skill.

Dyspareunia is a common complaint and may be due to vaginal scar tissue or irritating discharges from an infected cervix. In most cases, however, it is simply the individual's negative emotional response. She may be fearful of pain or possible pregnancy. She may have ingrained in her make up, by previous faulty training, a feeling that indulgence is bestial. Her submission may be fostered by a sense of marital duty rather than a response to erotic desire. The husband may cause unnecessary discomfort by his clumsiness. He may be so lacking in understanding that he is interested alone in his own physical relief and so inhibits any possible natural response that she might have. Careful instruction as to the significance of the erotic impulses of both man and woman, the dispelling of faulty taboos set up in early training, and the studied experimentation of various types of amorous technic will be productive of many more cures than will the surgical knife. The use of a surgical jelly as a lubricant will often affect quick and speedy cures.

Pruritus may vary widely in intensity. Often irritating discharges, rectal fissures or systemic disease may be the causative factors but there is a group of these cases in which the etiology is emotional and not physical. The itching is often a disturbance in satisfaction of the erotic needs of the individual. A subconscious sexual urge strongly inhibited or improperly satisfied may be productive of localized discomfort and an acute awareness of the genital tract. Surgery of the vaginal or anal region will probably be of little benefit to this type of patient.

In the short space of time allotted it will be impossible to present case histories covering the many phases of maladjustment suggested in this paper. The report of a particular case may be illustrative of the difficulty that is sometimes encountered in the determination of the etiologic factors at work.

CASE REPORT

Mrs. W. T. was seen for the first time on May 5, 1929. Her chief complaint was a menorrhagia. Her family history was irrelevant and, with the exception of mild cases of the ordinary diseases of childhood, she had always been in good health. Menses had begun at thirteen and were three days every twenty-eight days type with slight discomfort. She was married at eighteen. She promptly became pregnant. The gestation period was normal. The labor was of about fourteen hours' duration and spontaneous. The postpartum period was afebrile and she felt no unusual discomfort for two years. Then she noted that her periods were increasing in severity. There was a prolongation of the bleeding and increase in the amount. This has gradually increased in severity until at the present time she flows hard for seven to ten days and there is enough bloody discharge for about three weeks that pads are required. In each cycle there is only about six to ten days when she is free of bloody vaginal discharge. There have been no further pregnancies, the patient stating at this time that no form of contraception had been used, and she stated that were it not for the bleeding she would consider herself in good health.

On physical examination, we find a well developed adult female of twenty-five years, weight 134 pounds, height 64 inches. Head, neck and thorax were essentially negative. Pulse rate was 74; systolic pressure 100; diastolic 62. There was no evidence of any cardiovascular disturbance. The abdomen was rather lax with some tenderness on deep palpation over both Morris points. Gynecological examination showed a slight relaxation of the pelvic floor. There was a slight bilateral laceration of the cervix with some ectropion. The uterus was slightly enlarged, boggy, third degree retroversion. There was considerable tenderness along both broad ligaments. The right ovary appeared to be enlarged and was prolapsed. On inspection the cervix and vaginal walls showed a bluish discoloration that is so often associated with passive hyperemia and there was a slight trickle of blood from the external os. There was no evidence of auto-erotic practice. Urine was normal. Hemoglobin was 75 per cent; red blood cells, 3,780,000; white blood cells, 6,400. Wassermann and Kahn tests were negative. Basal metabolism rate was 2 plus.

A curettage was first done, the only findings being that of a simple premenstrual endometrium. The cervix was lightly cauterized. On opening the abdomen the uterus was found to be in third degree retroflexion with the right ovary prolapsed in the cul-de-sac. There were varicosities of the mesosalpinx. The uterus was boggy and slightly enlarged. The right ovary contained a retention cyst about 4 cms. in diameter and two small unruptured follicles. The left ovary showed no gross pathology. The tubes were patent, somewhat tortuous and showed evidence of marked passive hyperemia. The appendix appeared abnormal. A resection of the right ovary with puncturing of the smaller cyst was done. Then a Gilliam suspension and appendectomy completed the work.

The patient made an uncomplicated postoperative recovery. And for the first three months she was in good health and there was no abnormal bleeding. The periods were of 5/27-29 type. During the fourth month the period was prolonged for seven days, and in six months the periods were of about two weeks duration. After a great amount of effort had been spent in attempting to get additional information from the patient as to possible emotional factors that might have some bearing on the case the patient reluctantly gave the following informa-

tion. She came from a rather large family and it was impossible for her to secure the education that she desired. The amount of work to be done at home prevented her from following out her personal ambitions and so she married as an escape. She had no instructions as to the adjustments she might have to make.

She had some erotic impulses, but pain precluded any possible satisfaction. She promptly became pregnant. During this period she appears to have been moderately well adjusted. The husband's demands, however, were always much greater than hers. After the first pregnancy they were both extremely fearful of another pregnancy. He for economic reasons and she not wishing to repeat her own family pattern that she had found so distasteful. Coitus interruptus was then used as a means of contraception. With this method she obtained no erotic satisfaction and as the husband's demands became progressively more insistent she became more and more dissatisfied. The only time when she was free from this demand was during the time of actual bleeding. The bleeding that she had was not feigned. The problem was then fully discussed with both husband and wife, and she was instructed as to proper contraceptive methods. Within two months the atypical bleeding ceased and since that time the patient has been seen at intervals of six months. There has been no return of symptoms and both husband and wife appear fully adjusted.

I am fully convinced that there are scattered in our practices many similar cases. That much surgery is being done that would be unnecessary if the emotional problems could be corrected. Indiscriminate surgery, vaginal treatments with tampons and various electrodes will no longer suffice as adequate therapeutic measures with the new generation. The laymen are becoming better educated. They are too well informed to be taken in by Medical Voodooism. We must be prepared to not only correct the physical disabilities but understand the possible emotional problems that may be involved. By so doing we will widen the scope of our therapeutic armamentarium.

BIBLIOGRAPHY

Adler, A.: Understand Human Nature.
Davis, Kathrin B.: Factors in Sex Life of Twenty-two Hundred Women.
Dickenson & Bean: Analysis of a Thousand Marriages.
Forel, A.: The Sexual Question.
Frank, R. T.: The Female Sex Hormone.
Hamilton, G. V.: A Research in Marriage.
Keyserling, et al: Book of Marriage.
Kunkel, F.: Let's be Normal.
Watson, John B.: Behaviorism.

INJURIES OF THE KNEE JOINT

C. W. PEABODY, M.D.†
DETROIT, MICHIGAN

From the industrial standpoint knee joint injuries merit increasing consideration in the pressing effort to shorten temporary and eliminate or decrease permanent disability. Non-occupational accidents to this joint also seem to be on the increase with the elevated tempo of modern life and activities, and are even more prone to be given less serious attention than they often deserve. It is the purpose of this paper to review the more important types of injury, and the methods of treatment as developed by those dealing mainly with joint problems.

For the purpose of brevity purely extra-articular lesions such as acute or chronic prepatellar bursitis, ganglia, etc., will be omitted, and the discussion divided into the following headings: (1) Strain and Sprains, (2) Internal Derangements, (3) Dislocations, (4) Fractures, including patella, and (5) other injuries of the extensor apparatus.

STRAIN AND SPRAINS

The writer selects the term strain for disturbances of the knee developing gradually from use without any primary exciting incident, yet often aggravated by a comparatively minor injury. The location of the lesion is usually the mesial collateral ligament of the knee, with aching or pain referred to this area, a sensation of stiffness, sometimes a limp, and if sufficiently chronic possibly a slight synovitis with effusion. The etiological factors in chronic knee strain are static, resulting in undue tension

†Dr. Peabody is a graduate of Harvard University, A.B. 1912, M.D. 1916; of Massachusetts General Hospital in General Surgery and in Post Graduate Orthopedic Surgery; he saw military service two and one-half years, including service in France with Royal Army Medical Corps; formerly assistant in Anatomy, Harvard Medical School, and assistant in Orthopedic Department, Massachusetts General Hospital; Surgeon in Charge, Division of Orthopedic Surgery, Henry Ford Hospital, 1921-28; now Attending Surgeon, Children's Hospital of Michigan; Assistant Orthopedic Surgeon, Harper Hospital, and Surgeon in Charge, Sigma Gamma Clinic and Hospital-School for Crippled Children; Fellow, American College of Surgery and American Orthopedic Association.

on the mesial ligaments from valgus posture in leg or foot. Their persistence may lead to sufficient stretching of the collateral ligament to impair also the attachments of the coronary ligament to it, with meniscus hypermobility and predisposition to displacement. In addition to the valgus strain itself, badly pronating feet produce a torsion strain on the knee with each step, favoring irritation of ligaments and meniscus. The examination in strain will show discomfort referred to the inner side of the knee on forced abduction of the knee and forced hyperextension. If the irritation involves the coronary fibres, pain will also be produced on torsion of leg on thigh. The treatment in severe cases may require complete rest or fixation, but ordinarily alleviation of the static defect by the Thomas heel or by the Whitman weak foot brace, plus strapping of the knee (criss-cross with decussation over the ligament) and physiotherapy, including primarily massage, with preliminary baking, and exercises to tone up the quadriceps apparatus, especially the vastus medialis portion, constitute the treatment program.

Sprains of the knee are considered as acute injuries, involving a sudden stretching and more or less tearing of ligamentous fibres, contusion of joint surfaces, and synovitis with varying degrees of effusion. Immediate pain is experienced, with a short period often following of quite mild discomfort, and after some hours steadily increasing pain on use, with disability. Swelling due to the effusion gradually develops. To examination there will be a varying degree of generalized tenderness to palpation, more acute over the collateral ligament that received the strain, and if some slight degree of menicus loosening is involved, the tenderness will be present also along the joint line anterior to the collateral ligament. Fluctuation ballottement of the patella will occur with the presence of effusion and to inspection there will be fullness with obscurity of normal anatomical markings. Voluntary muscle protection may prevail but motion will be obtained to nearly full extension and to right angled flexion or more depending on the effusion. To manipulation there will be marked pain on lateral stress referred to the collateral ligament on which tension is being placed. If pain is produced on same side by stress in opposite direction, some degree of meniscus injury has also occurred, and pain on torsion will be equally marked.

In the milder grades of acute sprain use of the knee may be permitted with strapping, or bandage or a felt and flannel support, but considerable reflex quadriceps atrophy is likely to develop, with ensuing instability, and should be combated later by massage and exercises. Any effusion that floats the patella should be aspirated. This is very important, for the resultant capsular stretching otherwise will leave the joint unstable, and will also result in excessive reflex quadriceps atrophy. In any case with a considerable effusion, and especially with any degree of hemarthrosis, fixation of the joint for from one to three weeks should be accomplished. This is best done by cast, which should immobilize the joint, and to do this must extend above to the trochanter. Physiotherapy should follow till quadriceps function is normal. If primary hypermobility was present, a jointed knee brace to prevent lateral strain is indicated for one to three months. With effective initial treatment the immediate disability may be as little as one week and never over four, and permanent disability should not occur. However, with some acute sprains moderate impairment of the integrity of the meniscus, sufficient to ultimately require classification as internal derangement, may prevail.

INTERNAL DERANGEMENTS

Of the various internal derangements of the knee, injury to the meniscus (semilunar cartilage) is the most common. The mesial meniscus is involved about ten times as often as the lateral one. In its milder grades it is often difficult to distinguish from acute sprain, and will include the usual symptoms of the latter. However, if the patient obtained a sensation of dislocation or of the knee "going out" at the time of injury, a displacement or a tear of the meniscus is to be suspected, and fairly strong corroboration obtains from certain manipulative tests. Assuming a mesial meniscus injury, manipulation producing a varus stress will be more painful than one in valgus, and torsion in eversion will be more painful than in inversion. For an external meniscus the reaction will be in reverse fashion. Also confirmative is the presence of tenderness along the joint line

anterior to the collateral ligament and over the alar ligament.

The least severe meniscus injuries consist of stretching or partial tearing of the coronary fibres which attach the cartilage at its outer border to the head of the tibia, and so permit the meniscus in its anterior third to move too far under the femoral condyle in flexion and be jammed there for an instant on the returning movement. In a more severe injury the jam may be more complete, and since, as has been shown experimentally, the amount of compression ensuing between the two bones when the collateral ligaments are intact and the knee extends over even a thin substance between the joint surfaces, is enormous, the cartilage will be torn or fractured. The fracture may be a linear one, running circumferentially around the length of the meniscus, and the central portion will be displaced across the head of the tibia to lie toward the center of the joint under the intercondylar notch.

This is a nuisance injury, as the knee may become free again in motion and symptomless for periods, with occasional drifting back of this loop of cartilage under the condyle and momentary "catching" and "giving way" of the knee. Frequently one has to depend almost entirely on story and subjective symptoms for the diagnosis of this particular lesion. Occasionally this very thin central loop or fragment may wear away by attrition and absorption and the joint become permanently symptom-free.

A more severe form of meniscus damage results when the entire relatively mobile anterior third gets caught under the condyle and is snapped inward, completely severing its attachments to the front of the tibia. This produces the most typical symptomatic picture of internal derangement, with intermittent complete lock or block against extension and great pain. The fibres passing to the cornu from the alar ligament may hold and make possible manipulative or spontaneous reduction by their effect in drawing the mobile end back to the front of the joint. Otherwise this type of meniscus injury without surgical treatment is very likely to leave a permanent internal derangement of the knee.

The last form of cartilage lesion is the so-called bucket-handle fracture, in which the middle third or more of the meniscus is torn loose from the rim of the tibia, flopped over on itself and displaced to the intercondylar space. The knee will then operate without actual locking but with a clicking or heavy crepitation and full extension is never possible, with the attempt productive of pain and a tight feeling behind the knee as the posterior capsular ligament receives the leverage tension.

The treatment of meniscus injuries may take three forms according to the severity of the lesion. The partial loosening or mere hypermobility may be controlled by several weeks of strapping to prevent rotation and abduction, followed by physiotherapy to ensure maximum muscular stabilization. Recurrence, however, should lead to cartilage removal. Some anterior horn dislocations may be manipulated into place, with residual completely normal hyperextension the criterion of reduction, and, after plaster fixation for a month followed by the use of a knee cage brace, permanent healing of the torn ligaments and recovery of stability may occur. Recurrence, however, may be considered an indication for removal. In complete central displacements and bucket-handle fractures, evidenced by a block, and inability to bear weight without pain, operative treatment is the only recourse.

ARTHROTOMY FOR CARTILAGE INJURY

In skillful hands the surgery of meniscus injuries is almost invariably successful and highly gratifying. It does require a meticulous aseptic technic, delicacy of manipulation and more familiarity with the internal anatomy of the joint. It frequently can be performed without difficulty with local infiltration anesthesia. It is important that the indications be definitely established, but the exact form of derangement may often be ascertained only at operation. Operators with considerable experience in this field of surgery have learned that a moderate amount of meniscus hypermobility may maintain derangement symptoms, as proved by relief following the removal of the cartilage. In a rather large experience the writer has but once entered a knee joint with a diagnosis of meniscus injury without finding demonstrable evidence of pathology; but the general experience seems to be that with a suggestive history and examination, a questionable degree of cartilage hypermobility is best treated by removal.

The joint cavity is approached through a

short curved incision at the front but nearer the affected side, yet should not divide the mesial collateral ligament. The joint cavity is reached by a systematic incision of the various layers and careful ligation of the plexus of vessels beneath the fibrous capsule, before the synovial membrane is opened, and the latter is then incised under tension between clamps as in entering the peritoneum. The primary opening should be well above the joint line and carried down to the latter under direct vision, to avoid incising the meniscus and coronary ligament in the event of a peripherally split cartilage lesion only. A narrow blunt retractor draws the alar ligaments out of the way, the knee is partly flexed and the cavity inspected. In the type of lesion just referred to the centrally displaced loop may alone be excised, if the peripheral portion is not hypermobile. The normal degree of mobility must not be forgotten.

In anterior horn displacements it may be feasible to remove only a half or two-thirds of the cartilage. In bucket-handle fractures it has been the writer's practice to remove the entire cartilage completely, and if the knee is flexed and rotated and a special knife used this is not very difficult. If the knife hugs the cartilage closely there should be little residual bleeding. Opinion differs as to desirability of a tourniquet. Experience in operating under local anesthesia has led me to consider it of no important assistance. It is essential that great care be used in the placing of retractors, that intra-articular sponging should be minimal and only with moist gauze or cotton pledgets and that hemostasis be as complete as possible. A light absorbable suture, double or single 0 plain catgut, should close the synovial membrane, slightly everting its edges. A heavier chromicized suture or silk should be used for the fibrous capsule.

On the whole it is probably advisable to follow operation with a short period of immobilization and my own preference is for the posterior (Cabot) splint rather than plaster. A heavy moderately compressive flannel dressing is applied over the knee first. The patient should remain in bed for a week. A rise of temperature of one or two degrees may be expected in the first two days but it should be normal by the fourth. If postoperative effusion is slight or absent, on the fifth day massage from patella to the hip is begun in the splint. The latter is replaced at the end of a week by a heavy felt and flannel support and motion encouraged. At this stage the patient may be up and about on crutches and weight bearing should be encouraged after the tenth postoperative day. Physiotherapy should continue till quadriceps tone returns to normal. A normal range of motion can be expected within a few weeks. Very slight excess lateral mobility may persist for a while, but with good quadriceps tone functional stability and recovery should be complete and former occupation resumed, as well as capacity for participation in the more strenuous forms of athletics.

CARTILAGE CYSTS

Before leaving the subject of semilunar cartilage lesions a relatively infrequent type of pathology should be mentioned, which has been considered as a sequela of joint strain but is probably a degenerative condition not etiologically traumatic. I refer to cartilage cyst, extremely rare in the mesial meniscus, being usually in the lateral one. The symptoms are a gradually developing aching or boring pain at the side of the joint, aggravated by walking or by forced extension of the knee, and often first noticed after a minor injury or bump. Very early a soft swelling will have been noted. To examination the joint is free from evidence of injury, there is no clicking, but there may be a few degrees deficiency in extension. Visible at one side of the joint line is a small swelling which is soft, cystic in feeling, and slightly tender to pressure. It gives the erroneous impression of an extra-articular sac or ganglion and this is important in planning surgical intervention. It should not be confused with bursa or ganglion, as it is not in relation to any tendon. The treatment is operative and means the complete excision of the meniscus, as removal of the cyst alone invariably seems to be followed by recurrence, and the cartilage elsewhere on microscopic examination will give evidence of cystic degeneration.

JOINT MOUSE

The next form of internal derangement of the knee to be considered is "joint mouse" or loose body. When multiple (osteochondromatosis), a background of chronic hypertrophic synovitis exists and

this type does not belong in a traumatic classification. Joint sprains, however, may involve a nipping of a synovial fringe, followed by fibrous and chondrons degeneration, with production of a pedunculated or free loose body. Or a bit of cartilage may be detached and continue to grow from the adequate nutrition of the synovial fluid. Catching and clicking will be a symptom, but unless the "joint mouse" is large and palpable, locking or limitation and pain on manipulation will not be found, and synovitis will not occur. When a pedicle persists, calcification in the loose body may occur, making it roentgenologically visible. The "joint mouse" is frequently migratory. As long as it lies in the quadriceps pouch, although palpable, it will not be very symptomatic. If it migrates into the lower compartment it produces clicking, catching and pain. A special form of joint mouse found in the lower compartment is that known as osteochondritis dissecans, in which a considerable lozenge shape segment seems to sequestrate from the mesial condyle of the femur adjoining the notch. This location has led to a theory of impingement of the spine of the tibia in a rotation strain, but this is debatable, and the pathology is also held to be an aseptic necrosis. The surgical removal of loose bodies is simple and does not require discussion, save for the point of final determination of the exact location of the joint mouse immediately prior to operation.

SLIPPING PATELLA

A form of derangement of the knee usually included in traumatic classifications is luxating or slipping patella. Unquestionably a certain form of injury with direct violence may produce a tear of the capsule and force the patella off the trochlea to the side of the condyle. In this event it is extremely difficult to replace by the patient and severely painful, with a marked effusion following. Recurrences are much easier and spontaneously reducible. However, most slipping patellas are basically congenital, with some degree of capsular relaxation and hypermobility present on both sides, and a family tendency usually prevails. The dislocations tend to be more and more frequent and become a disabling handicap eventually. While some improvement in stability may attend the use of a knee cap or a patella harness, it is rare that any permanent effect is obtained, and, as in recurrent dislocation of the shoulder, the only cure is operative.

Several measures of surgical reconstruction have been devised. Probably the best and simplest is the modification of Goldthwaite's operation, whereby the tibial tubercle carrying the patella tendon is detached and re-embedded an inch or so more mesially on the front of the tibia. The resulting mesial line of pull on the patella keeps it away from the danger point over the lateral condyle. In a rather limited experience with this condition the writer has found this operation very satisfactory, although in one case of a badly and repeatedly traumatized knee with great relaxation it was necessary secondarily to do a capsular reefing with forward transfer to the patella of the gracilis tendon. Each of the two latter procedures has been advocated in surgical relief of slipping patella, but alone is not as likely to be dependable. In a single case in an adolescent the writer was successful by means of a capsular reefing plus a silk ligament suspension tether to the side of the mesial condyle. Of a similar character is the operation of Gallie, of a tether by a fascia lata graft. All the above mentioned procedures can be performed without opening the joint cavity. Albie has advocated and successfully used a bone plastic operation in which the trochlea portion of the external condyle is loosened and blocked up higher with a bone graft.

RUPTURED CRUCIALS

An injury to the crucial ligamentous apparatus of the knee is the last and least frequent form of internal derangement. It may take the form of fracture of the tibial spine (which projects from the center of the head of the tibia into the intercondylar notch) and the fibrous repair may restore integrity of the crucial ligaments. The spine may not unite, but remain loose in the center of the joint causing locking symptoms. This is diagnosable by X-ray and removal of the bone is not difficult. One or both of the crucial ligaments may be ruptured, with ensuing great laxity of the joint in an anteroposterior direction, resulting in weakness and instability. In most instances fixation followed by the use of a competent brace for a considerable period will be followed by recovery of stability. For persisting dis-

ability Hey Groves devised an operative reconstruction in which strips of fascia lata or tendon are passed through decussating tunnels drilled across the joint through femur and tibia, and he has reported successful results.

Lateral dislocations of the knee, that is, of the tibia on the femur, cannot occur except as a result of one or the other of the above mentioned injuries to the ligamentous apparatus, which in itself makes the reduction of the dislocation easy and constitutes eventually the problem of the lesions discussed.

PATELLA FRACTURES

There remain for description in knee joint injuries the fractures, which will be limited here to those of the patella and of the head of the tibia. Fracture of the patella is a quite frequent joint injury, and one not necessitating the residual disability which is still too frequently seen. It may be discussed under two heads: first acute, and second ununited fractures. In a fresh fracture of the patella with not over ¼ inch displacement alone do we find a place for non-operative treatment of this injury. Fixation in an adequately long cast for four weeks without weight bearing, followed by walking for two more weeks in plaster or a rigid brace, and for two more months in a brace with a lock joint, is the treatment of choice. Fibrous union only will prevail for some time. In fractures with greater degrees of separation of the fragments the injury has involved extensive lacerations of the capsule and lateral expansion of the quadriceps tendon, and a weak fibrous union with likelihood of subsequent giving way, or the restriction of motion from adhesions, is almost certain to follow any treatment save open reduction.

Open reduction should follow as soon after injury as possible, and not, as sometimes recommended, after a waiting period in which joint adhesions will get under way. In a considerable series the writer has not failed to get bony union and from 90 degrees to normal motion as a result of operative treatment. It is my preference not to do a wiring operation, but to do a careful layer repair of the lateral tears, oppose the fragments by periosteal sutures, and reenforce by heavy sutures running from quadriceps tendon over the bone to the patella tendon below. In comminuted fractures a circumferential suture of kangaroo tendon is sometimes of assistance. Plaster fixation follows for two weeks, when the cast is bivalved and massage started with active "setting" of the quadriceps and "shrugging" of the patella done in the cast. At the end of a month walking is begun in a long brace with lock joint and an adjustable stop which permits increasing the range of motion for the sitting position at a rate of about 10 degrees each week. The brace is discontinued at the end of 2 to 3 months, depending on the rate of bony union as shown by X-ray, physiotherapy being continued during this period.

Ununited patella fractures present a more difficult problem, of course operative. The fragments must be freshened and brought into apposition and adhesions freed. Some form of more or less permanent internal fixation is indicated in a fracture of any standing, as bony union will be slow. Albee has advocated an inlay bone graft cut upon a double triangular pattern. A case in the writer's practice was worked out somewhat differently. A rather comminuted fracture had resulted under non-operative treatment in persisting separation, fibrous union and marked limitation of motion, complicated a year later and 10 days before coming under my care by a fall and very extensive separation. At operation the widely separated fragments were gradually brought together, stretching down the contracted quadriceps with the help of a screw clamp for the patella originally advocated for external fixation. The adhesions having been freed until full motion could be obtained, the fresh lacerations in the lateral capsule were carefully repaired and sutures placed in periosteum and fascia across the fracture line. Inasmuch as bony union would probably be slow and as early motion was desired, some means of maintaining living continuity of the extensor apparatus seemed indicated. Accordingly, the stout heavy tendon of the peroneus longus muscle was removed in its whole length, the proximal end the stump being sutured into the peroneus brevis. This free tendon graft was passed through the patella tendon, each end brought up over the surface of the patella, passed again through the quadriceps tendon and sutured together after emerging, enough tension being applied to hold the fragments together while the knee was flexed. Mas-

sage was started on this case in one week and motion in two, with walking in a brace soon after. Motion was nearly complete in a few months, and although continuity of extensor control prevailed through the tendon graft independent of bony union, the latter eventually was complete and function became entirely normal. By this technic the potential irritative dangers of wiring were avoided, the procedure was simple and easily carried out, and I think may well be recommended in this type of case.

TUBEROSITY FRACTURES

There is a type of fracture of the upper end of the tibia which involves the integrity of the knee joint and frequently results in great disability. It is sometimes called the fender fracture or bumper fracture from the frequency of its production by this form of injury. In industry similar fractures are common from violence received on the side of the knee while it is rigid under body weight or lifting effort. In the most common and simplest form it results in an oblique line of fracture running nearly in a transverse plane from the side of one tibial tuberosity inward and upward to the middle of the articular surface near the tibial spine. The lateral stress causes an impaction of the cancellous bone and the secondary force through the femoral condyle drives the top of the tuberosity downward and away from the center. Effusion and hemarthrosis of the joint follows and without X-ray the injury may be mistaken for an internal derangement of the knee, which as a matter of fact it is in a way. A persisting varus or valgus deformity will suggest the site of the displacement, but the effusion will in a few days produce enough stretching or relaxation of the collateral ligament to permit bringing the legs into alignment, so that X-rays must be obtained and studied carefully. It is absolutely essential that any but the slightest degree of downward and outward displacement of the joint surface be corrected, for deformity will otherwise be progressive and disabling.

When the impaction is not too solid it is possible by reverse manipulation through the pull of the corresponding collateral ligament to lift the depressed tuberosity up into alignment. The limb must then be immobilized in full extension to maintain this pull and in apparent over-correction. Lateral displacement may be corrected by moulding with the hands or by a padded mallet blow on the side of the tuberosity. If manipulation is not successful, open operation is indicated to pry up the fragment, and in this event it is better to hold it wedged up by a block of bone removed from the tibial crest.

In a more severe form the fracture may traverse both tuberosities and enter the joint, the fracture line forming an inverted T or Y, with the body of the tibia wedging the two fragments apart. Closed reduction even here may be successful, the tibial neck being pulled down by strong traction and the tuberosities moulded back together by a weaving manipulation with simultaneous side pressure. Maintenance of the reduction requires continued skeletal traction and lateral pressure by screw pads. Open reduction and internal fixation may be required, however, but the ordinary plate with short screws gives little security in the soft cancellous bone of the tuberosities and spreading of them may not be avoidable save with a long transfixion bolt.

If not compound and if the deformity is reducible, fractures of the tibial tuberosity may still permit recovery with preservation of good joint function. Organization of hemorrhage and exudate may result in fibrous adhesions around the alar ligaments and infra-patella fat pad, but these will either stretch gradually with physiotherapy or can be freed by brisement forcé. However, in the convalescent care it must be remembered that union of bone fragments is fibrous only for several months and that unprotected weight bearing may bring about recurrence of deformity. Motion should be started in 4 to 6 weeks, but lateral stress must be prevented even when weight bearing is not allowed by a carefully fitted corrective brace. The design of the latter is particularly important if varus deformity has to be controlled, and, save for the long slender limb, it must include a pelvic band. A properly designed and fitted brace will enable weight bearing to be transmitted through one side of the joint only. Active function with protection will prove the most potent stimulant to complete repair.

SUMMARY

In the foregoing pages the more common disturbances of knee joint function arising

on a traumatic basis, and the program of management of each has been outlined. While little has been introduced in the way of original contribution to the subject, a stimulation for this type of presentation has arisen out of a conviction that the outstanding methods and the systematic approach to the problem that are utilized with such gratifying results in many quarters should become more universally applied. As a final thought, the writer would like to stress the stimulation of recovery that arises from properly regulated functional activity, and the rôle of physiotherapy (which term in this connection does not mean lights or electricity) therein.

SICKLE CELL ANEMIA IN A SIX MONTHS OLD COLORED FEMALE INFANT

REPORT OF A CASE

HIRA E. BRANCH, M.D.
DETROIT, MICHIGAN

On July 7, 1932, D. S., a colored female infant of six months, was brought into the hospital because of a high fever and a bad cold. The present illness was of one week duration and began with hoarseness and a bad cough. The baby refused to eat, did not sleep well, was very hoarse, and had a fever which alarmed the mother. The history was essentially normal. The baby was a full term child, normal delivery, and weighed about nine pounds at birth. She was placed on a bottle at birth and received cow's milk, and also tomato juice, orange juice, and cod liver oil. The development was normal; she sat up at five months and had two teeth when admitted to the hospital at six months.

Physical examination was normal except for paleness of the mucous membranes and nail beds; also an injected nasopharynx was present. There was some ricketic beading to the rib ends.

Blood examination was the interesting point of the whole case. Hemoglobin was 8.2 gms. (14.5 gms. being 100 per cent). Red blood cells were 1,900,000 per cubic centimeter. White blood cells were 34,900, of which 50 per cent were polymorphonuclears, 41 per cent were small lymphocytes, and 9 per cent large lymphocytes. There were a great many normoblasts, 56 per cent, 3 per cent megaloblasts, 2 per cent myelocytes. There was moderate polychromatophilia, marked poikilocytosis and anisocytosis, and the irregular arrangement of the hemoglobin caused a fresh drop of blood to be examined, which showed no sickling of the red blood cells for about seven hours. However, soon after this time a few sickle cells appeared, and in twenty-four hours most of the red blood cells showed the sickling phenomenon. There was no doubt of the diagnosis of sickle cell anemia in this case, at The Children's Hospital of Michigan where the child was brought for acute nasopharyngitis. This latter condition, nasopharyngitis, cleared up very rapidly so the patient was discharged just one week after admission, on July 27, 1932. The patient was to be followed in the outpatient department of the Children's Hospital of Michigan.

PRODUCTION OF GASTRIC AND DUODENAL ULCERS IN EXPERIMENTAL CINCHOPHEN POISONING: PRELIMINARY REPORT

F. H. Van Wagoner and T. P. Churchill, Chicago, observed that in an experimental series of twenty-four dogs, nineteen, or 80 per cent, showed lesions which corresponded in location and in gross and microscopic appearance to ulcers of the stomach and duodenum in human patients. The animals were divided into four groups. Of the five dogs in group 1, receiving twenty-seven times the normal human dose of cinchophen per kilogram of body weight, ulcers developed in three. The dogs in group 2 received ten times the normal human dose and in all ulcers developed. The dogs in group 3 were given five times the human dose and in all ulcers developed. Of seven dogs in group 4 that received the usual human dose, ulcers developed in four. In most of the animals the ulcers were multiple. There were thirty-four ulcers in the nineteen dogs. All the dogs early showed a marked anorexia and all of those with ulcers had, on repeated occasions, the typical tarry stools of gastric and duodenal hemorrhage. The five dogs in this series in which ulcers did not develop took only a few doses of the drug at long and irregular intervals. The occurrence of gastric and duodenal ulcers in dogs receiving daily doses of cinchophen is probably a species peculiarity. At least we have not found in the meager autopsy records of alleged fatal cinchophen poisoning in human cases reported in the literature, a single instance of ulcer of the stomach or duodenum. However, in only about one-fourth of the reported human cases is the stomach or duodenum mentioned in the autopsy protocol. The daily administration to dogs of from five to ten times the normal human dose of cinchophen per kilogram of body weight will induce typical gastric or duodenal (peptic) ulcers in approximately 100 per cent of the animals in ten days or more. The authors believe that their method is the only one thus far described by which these lesions can be produced with any degree of constancy without operative procedures that upset the normal anatomic and functional interrelationships of the stomach and intestine.—*Journal A. M. A.*

MICHIGAN DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H.
LANSING, MICHIGAN

KAHN REPORTS

In conformity with the recommendations of the Second Serological Conference held at Copenhagen, the Michigan Department of Health after February 1, 1933, will report the results of the Kahn test as Positive, Negative, or Doubtful. The pseudo-quantitative reports of +, ++, +++, ++++, and ± will no longer be made.

This change in administrative practice has come about after much study, long continued investigation and numerous conferences, and it does not appear that the actual information conveyed to the physician as a result of serological study of a serum will be materially altered. The present method, giving, as it does, apparently quantitative results, is at times misleading and is of little real value to the physician under the conditions prevailing where the physician and the laboratory have so little contact. It is not the intention of the Michigan Department of Health to imply that quantitative tests have no value. Such tests when there is close coöperation between the physician, the patient and the clinical pathologist may be most helpful. It is felt, however, that a report of positive, negative or doubtful will be as valuable as the reports at present given. This is shown by the following summary of results obtained on 10,000 serums.

PRESENT METHOD OF REPORTING

	++++	+++	++	+	±	—	Total
No.	1017	208	104	122	92	8457	10,000
%	10	2	1	1.2	.9	84.5	

A SUGGESTED NEW METHOD OF REPORTING

	Summation of			
	4.5 plus signs or more	2-4 plus signs	Less than 2 plus signs	Total
	Positive	Doubtful	Negative	
No.	1354	189	8457	10,000
%	13.25	2.15	84.5	

According to these tables, results of ++++, +++, and ++ would be reported as positive, + and ± as doubtful. The difference is obviously insignificant.

C. C. Y.

PREPARATION OF CONVALESCENT SERA

The State Council of Health at its meeting November 11, 1932, adopted regulations for the preparation of convalescent sera for distribution and sale in Michigan. This became necessary because a number of private and commercial laboratories are distributing such sera, not all of which are prepared according to standard methods.

The regulations of the State Council provide that:

"Convalescent sera shall contain a preservative such as 1:10,000 methiolate or mercurophen and must have passed sterility tests and safety tests as outlined below prior to release for distribution. The product shall be a clear solution without precipitated materials, and without objectionable odors of decomposition. Only donors giving a negative Kahn or Wassermann test shall be used.

"After a lot of convalescent serum has been filled into the final containers, 3.0 per cent of the vials filled (not less than three vials nor more than ten) shall be picked at random and used for sterility tests."

Regulations further specify the details of inoculation of fermentation tubes in making these sterility tests. Safety tests must also be carried out consisting of the intra-peritoneal injection of guinea pigs and their observation. Each lot of convalescent sera must be given a lot number and this must appear on the protocols of all tests. Protocols shall be furnished according to the specifications to the Michigan Department of Health Bureau of Laboratories.

Recommendations are made concerning the collecting of blood and its processing and the keeping of records of the blood of all donors.

A formula for the manufacture of the sterility test broth is suggested and if this formula is not used, such formula as is used must be approved by the Michigan Department of Health.

The use of convalescent sera which have been produced under any other than exacting conditions is so fraught with danger that these regulations became necessary to safeguard the physician and his patient. A copy of the complete regulations will be sent by the Michigan Department of Health to anyone interested.

COMMUNICABLE DISEASE REVIEW

There is little change in the trend of communicable disease incidence since our last report. Typhoid fever continues above the norm for the last few years. Cases are well scattered throughout the state and while there have been a number of small outbreaks, there have occurred no outbreaks of any magnitude.

Diphtheria shows no deviation from its continuous and sharp decline. Every month establishes a new low incidence for that month.

Scarlet fever continues on its increase in number of cases reported. The year will close with a higher number of cases than has occurred for several years and indications now are that it will be the highest on record. The fatality rate is low.

Smallpox has been practically non-existent in the state, there being one case reported in September and one in October for the entire state. During November there was a small outbreak in Newaygo County.

Poliomyelitis has been lower than the average throughout the entire "poliomyelitis season." During this season, July-August-September-October, there were 74 cases reported. During the outbreak of 1931, there were reported for the same period 1,054 cases. Very little convalescent poliomyelitis serum has been supplied by the Michigan Commission on Infantile Paralysis. Few of the cases called physicians early enough to justify the use of the serum, which was available at all times. A summary of the consultants' reports and the cases in which serum was used, is being compiled and a copy of this will be supplied to any physician on request to the Michigan Commission on Infantile Paralysis, State Office Building, Lansing.

ISABELLA COUNTY HEALTH UNIT

The Isabella County Health Unit was overwhelmingly approved by the voters in that county on November 8. Never before in Michigan, and seldom, if ever, elsewhere, has an organized full time county health service been placed before the voters for their approval. The overwhelming vote puts the stamp of approval of the people of the county on the work done by the county health unit. There are 28 other counties in the state now receiving similar service. None of these counties have been dropped by the wayside during the time of cut appropriations by the boards of supervisors. There have been reductions in budgets and salaries, but in no county has the work been materially affected.

Doctor T. E. Gibson is the Acting Director of the Isabella County Unit. Doctor M. B. Beckett, who has been Director of the Unit since May 15, 1931, has been granted leave of absence to take advantage of a Fellow ship in Public Health at Johns Hopkins University. The Isabella Unit is supported by the county, city of Mount Pleasant, United States Public Health Service, Children's Fund of Michigan, and the Rockefeller Foundation. Miss Lillian Upham is the Children's Fund nurse working in the County with the Unit. Miss Charlotte Young is the Unit's nurse for Mount Pleasant. Mrs. Neva Priest is the clerk.

C. D. B.

CHILD HYGIENE

Dr. Ida Alexander has completed her work with the series of women's classes in Pontiac and the Hartland Area. During the three weeks that Dr. Alexander spent with the classes there was an attendance of 1,022. Bertha Wellington is completing the classwork, giving talks on nutrition, with special emphasis upon nourishing foods at low cost.

A five weeks' series of women's classes has been begun by Dr. Alexander in Ionia County.

Child care classes are being conducted in Presque Isle County by Bertha Cooper, R.N., and in Cheboygan County by Deane Rinck, R.N. Both series of classes will terminate early in December. The same type of classwork is being given to girls in Oceana County by Caroline Hollenbeck, R.N., and in Huron County by Julia Clock, R.N.

A prenatal nursing program is being carried on in Allegan County by Martha Giltner, R.N., in connection with the Allegan County Health Department. This program will end in January and Miss Giltner will go to Midland County to work with prospective mothers in that county.

Dr. Edna Walck has completed a three weeks' series of county normal training class lectures on Health Inspection of School Children and has begun a four weeks' series of women's classes in Kalamazoo County.

L. R. S.

REPORT OF THE COMMITTEE ON COST OF MEDICAL CARE

[The Executive Committee has directed that the following synopsis of this report as published in the *Journal of the American Medical Association* be reprinted for the information and benefit of our members. It was also directed that the "costs of Illness" as printed in the *Bulletin of the Wayne County Medical Society* be reprinted as being expressive of the attitude and opinions of the Executive Committee. It is recommended that County Societies, by suitable action, record endorsement of the Minority Report.—F.C.W.]

Costs of Illness, and Detroit Physicians

After a study of the final report of the Committee on the Costs of Medical Care, the Press Relations Committee of the Wayne County Medical Society submitted the following statement to the newspapers at Detroit, on November 29, 1932.

The medical profession will always favor any plan which will *improve public health.* As evidence of this, witness the spontaneous effort on the part of medical societies to calmly and objectively study all problems concerned with health insurance. For some time, the medical profession, looked upon by business men as a barometer that forecasts approaching storms, has been compiling data and studying all social experiments in this country. Michigan physicians have been busy at this work for over a year and hope to present their findings within a few months.

As far as the individual practitioner of medicine is concerned, a plan of health insurance offers him a definite, assured income in contrast to his very precarious and impecunious position in the economic world of today. If he had a regular income and many of his present responsibilities were removed, he would be freed of a great many worries. However, the physician conscientiously objects to hurried acceptance, in an emergency, of what may appear to be a panacea.

As examples of precipitous and revolutionary actions, let us look at the debacle of the Eighteenth Amendment, and also the extravagant legislation covering benefits to veterans with non-service connected disabilities. By rapid and immmature legislative activity, this country was placed in a position from which it will take years to extricate itself. We cannot afford to make another such costly mistake.

Let us look at some of the problems of health insurance: If compulsory health insurance programs are established here, how is the matter of finance to be handled? Excluding capital charges, the Committee on the Costs of Medical Care estimates it will cost from $20.00 to $40.00 per capita per annum. Obviously, the recommendations of the Committee were made on the premise that a great plurality of the population was employed. What provision is there made, then, for a time like the present when unemployment is general? Is it anticipated that, with the present trend of calling on the government for an increasing variety of gratuities, the insurance premiums of from $20.00 to $40.00 per capita, exclusive of capital costs, are to be borrowed from the government? Are the capital changes also to be paid by the government? Are we to assume that in all periods of depression, the government is to carry the full health burden for the unemployed. If so, would not the United States government be placing itself in a position similar to that which has brought havoc to the English treasury? With the Unemployment Fund in England already indebted to the government to the extent of $1,250,000,000 and steadily increasing, it can readily be seen how America, with a population approximately three times that of the British Isles, could incur an indebtedness of nearly $4,000,000,000 with social insurance established along similar lines. Four billion dollars now runs our entire federal government. Take on social insurance and you *double* your present high taxes.

How the Plan Would Affect Detroit

So far as Detroit is concerned, if, during the past three years, physicians had been paid for services rendered to unemployed and temporarily submerged members of society, the welfare budget would have been swelled to astounding proportions, placing it far beyond the control of our civic leaders. What would have happened to our relief program in this city if the medical profession had not come to the fore and rendered generous aid without cost?

With the great majority of Detroit physicians busy in insurance practice, who would perform all the free work in the clinics? As the problem of unemployment is reviewed, it becomes very evident, particularly here in Detroit, that we will always have a large group of unemployed which will increase in direct ration to the increase of machines that take the place of man power. What provision is being made for this particular group? Are we to assume that the government is to carry its health insurance burden constantly, year after year? If that is to be the case, then we may assume: First that there must be an immediate increase in taxation several times that which we are now paying; second, that this may be construed as the entering wedge of complete socialism. What would prevent the plan from being broadened to include the legal and engineering professions, banking, shipbuilding, manufacturing, power production, lithographing, retail selling, and the operation of laundries, restaurants, and scores of other enterprises?

With the public demand that the Committee's report may create, it is possible that a great many mushroom medical groups will suddenly spring up. In their hurry to meet the public's demands, these groups of physicians may, in some instances, render a service not up to the present high standard. They may even go so far as to offer hospital service that would be unsupervised to a great extent.

For a number of years and in an evolutionary (and not a revolutionary) way, the medical profession has been attempting to establish an efficient method of handling medical service, broadly based on lines similar to those recommended by the Committee on the Costs of Medical Care. These principles have been well presented in the Minority Report, signed by nine members.

The profession feels that it would be wise not to jump into this thing too hastily. As far as the doctor is concerned, the plans recommended by the Committee would be beneficial, from a selfish point of view. As far as the public is concerned, such plans hurriedly conceived and put into operation cannot maintain the human attributes and personal interest which are the outstanding characteristics of our present day medical practice.

FINAL REPORT OF COMMITTEE ON THE COSTS OF MEDICAL CARE

Five years of work by the fifty members and research staff of the Committee on the Costs of Medical Care have culminated in this final report, entitled "Medical Care for the American People." The majority report was favored by the following:

Private Practice.—Lewellys F. Barker, M.D.; Walter P. Bowers, M.D.; J. Shelton Horsley, M.D.; Stewart R. Roberts, M.D.; Richard M. Smith, M.D.; Walter R. Steiner, M.D., and Rollin T. Woodyatt, M.D.

Institutions and Special Interests.—W. Irving Clark, M.D.; William Darrach, M.D.; Louis L. Dublin, Ph.D.; Elizabeth Fox, R.N.; Ambrose Hunsberger, Phar.M.; Alfred Owre, D.M.D., M.D.; W. S. Rankin, M.D.; Mary M. Roberts, R.N.; and Winford H. Smith, M.D.

Public Health.—George H. Bigelow, M.D.; Herman N. Bundesen, M.D.; Haven Emerson, M.D.; John Sundwall, M.D., and C. E. A. Winslow, Dr.P.H.

Social Sciences.—Michael M. Davis, Ph.D.; William T. Foster, Ph.D.; Wesley C. Mitchell, Ph.D.; William F. Ogburn, Ph.D., and Henry C. Taylor, Ph.D.

The Public.—Winthrop W. Aldrich; Morris L. Cooke, D.Sc.; Mrs. William Kinnicutt Draper; Homer Folks, LL.D.; John P. Frey; Mrs. Walter McNab Miller; William J. Schieffelin, Ph.D.; Amelia Sears, and Ray Lyman Wilbur, M.D.

A summary of the majority report follows:

I

"The Committee recommends that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists and other associated personnel. Such groups should be organized, preferably around a hospital, for rendering complete home, office and hospital care. The form of organization should encourage the maintenance of high standards and the development or preservation of a personal relation between patient and physician.

II

"The Committee recommends the extension of all basic public health services—whether provided by governmental or nongovermental agencies—so that they will be available to the entire population according to its needs. This extension requires primarily increased financial support for official health departments and full-time trained health officers and members of their staffs whose tenure is dependent only on professional and administrative competence.

III

"The Committee recommends that the costs of medical care be placed on a group payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods. This is not meant to preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, *i.e.*, compensation for wage-loss due to illness, if and when provided, should be separate and distinct from medical services.

IV

"The Committee recommends that the study, evaluation and coördination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions, and that the coördination of rural with urban services receive special attention.

"The Committee makes the following recommendations in the field of professional education: (A)

That the training of physicians give increasing emphasis to the teaching of health and the prevention of disease; that more effective efforts be made to provide trained health officers; that the social aspects of medical practice be given greater attention; that specialties be restricted to those specially qualified; and that postgraduate educational opportunities be increased; (B) that dental students be given a broader educational background; (C) that pharmaceutical education place more stress on the pharmacist's responsibilities and opportunities for public service; (D) that nursing education be thoroughly remolded to provide well educated and well qualified registered nurses; (E) that less thoroughly trained but competent nursing aides and attendants be provided; (F) that adequate training for nurse-midwives be provided, and (G) that opportunities be offered for the systematic training of hospital and clinic administrators."

The first chapter surveys "The Present Status of Medical Care." It reports that 177,000 physicians and dentists, with some 900,000 others at an annual expense of $3,647,000,000, so distribute their services that those in the lower income groups, while suffering as much or more sickness, receive far less medical service than those with a greater income.

There is a lack of preventive health care; indeed, "niggardly appropriations for public health work." The burden of sickness cannot be measured by averages, because of the extreme unevenness with which it is distributed. Fifty per cent of the families in the United States have incomes of less than $2,000, which means that "even less-than-average charges for medical service, therefore, are more than many of our families can bear."

One conclusion reads: *"Certainly no solution to the problems of medical costs can be reached through a reduction in the average of professional incomes"* (italics in original). This average is none too high now to attract a high type of practitioner and permit progress through graduate training and study.

The Committee attempts from the report of some of these investigations to calculate the cost of complete medical care and concludes that "all needed medical care of the kind which people customarily purchase individually could be provided in urban regions at least, at a cost, excluding capital charges, of $20 to $40 per capita per annum."

The second chapter discusses "The Essentials of a Satisfactory Medical Program." Six basic essentials are enumerated:

"1. The plan must safeguard the quality of medical service and preserve the essential personal relationship between patient and physician.

"2. It must provide for the future development of preventive and curative services in such kinds and amounts as will meet the needs of substantially all the people and not merely their present effective demands.

"3. It must provide services on financial terms which the people can and will meet, without undue hardship, through either individual or collective resources.

"4. There should be a full application of existing knowledge to the prevention of disease, so that all medical practice will be permeated with the concept of prevention. The program must include, therefore, not only medical care of the individual and the family but also a well organized and adequately supported public health program.[1]

"5. The basic plan should include provisions for assisting and guiding patients in the selection of competent practitioners and suitable facilities for medical care.

"6. Adequate and assured payment must be provided to the individuals and agencies which furnish the care."

Having set up these standards, the Majority Report selects three lines of approach to the solution of its problem:

"(a) The development of types of organized or group practice that will more effectively and economically meet the community's medical needs.

"(b) The distribution, over a period of time and over a group of families or individuals, of the costs of service.

"(c) Provision for the planning and coördination, on a local and regional basis, of all health and medical services."

It is evident that the program of the Majority Report centers around "provision of service through organized groups." The groups studied on which conclusions are based covered only fifty such groups; conclusions as to the financial operation of such clinics and especially as to their net and gross income are based on the information furnished by twenty-seven such clinics.

The Majority Report sets up "standards" for group practice and among these emphasizes the statement that *"lay groups organized for profit have no legitimate place in the provision of this vital public service"* (italics in original). This standard, the Committee seems to fail to note, would eliminate many of the examples of group practice on which it depends for the argument previously mentioned leading to the estimate of annual cost.

"Inevitably the Committee has been led to the conclusion that the costs of medical care should be distributed over groups of people and over periods of time." This leads to the adoption of insurance as a major recommendation. The participation of insurance companies is rejected and taxation accepted only in a secondary form. Having eliminated these, the Majority Report is brought to the somewhat indefinite conclusions that "there should, therefore, be an agency in each community through which the lay and the professional groups concerned in providing and financing medical services could consult, plan and act in behalf of the best provision of medical resources which the community can afford." The character of this "agency" remains indefinite throughout the report.

Chapter three sets up "An Ultimate Objective in the Organization of Medicine." "The keystone of the concept of a satisfactory medical service for the nation is the development of one or more nonprofit 'community medical centers' in every city of approximately 15,000 population or more." Then follows a description of such an imaginary center. The Majority Report passes lightly over such questions as the possibility of the redistribution of great medical centers that have been established in most large cities for educational, political, financial or other purposes which render them ill adjusted to fit into such a program.

It assumes that existing hospital organizations can be so transformed but offers little information as to the methods by which this change may be brought about. There is much talk of coördination and control of services" but there is no definite statement as to what is to constitute this important factor in the program.

Chapter four considers "Plans and Experiments Now Under Way" and lists twenty-five such experiments. Four of these are "under professional sponsorship"; four "under consumer sponsorship"; thirteen are listed as "under community sponsorship with professional participation"; one "under joint

[1]The term "public health program" is meant to include the work of the official health departments and of voluntary health agencies.

sponsorship of professional and consumer groups," and three "under commercial sponsorship." All of these are treated without the specific criticisms necessary to inspection of the foundation stones on which the structure of the national medical service is to be erected.

The Committee concludes that:

"These twenty-five types of development in the United States and the many developments abroad show a ferment at work in medical practice which contains great possibilities for good and evil. The Committee is aware of the fact that some of the plans are mere attempts to capitalize for private gain the people's need for better medical service. It is equally aware of the dangers inherent in other plans. Each should be viewed as an experiment and subjected to the careful evaluation that is given in a scientific laboratory. Some of them appear to the Committee to be very promising."

The fifth chapter includes "The Recommendation of the Committee" previously here quoted. The somewhat vague character of the report is excused by the statement that "the Committee believes that its obligations require it to think ahead for twenty or thirty years, as well as for the next five or ten years and to present distant as well as immediate goals."

The Committee's first recommendation that medical service "should be furnished largely by organized groups of physicians, dentists" and so on does not take account of the fact that these groups are already professionally organized in their own associations. Indeed, the existence of these professional associations is almost entirely ignored in the Majority Report.

"The Committee's most fundamental specific proposal is the development of suitable hospitals into comprehensive community medical centers."

Industrial medical service is cited as another step toward the realization of this recommendation, and the Majority Report suggests "that free choice of practitioners should be allowed insofar as practicable.

University medical service is also to be fitted into this scheme. "In 'College towns' it may frequently be feasible to expand the university medical service into a community medical center which serves townspeople as well as students."

The Majority Report recognizes the necessity of measures to maintain the quality of medical service in groups; no recommendations are made concerning relationships with professional asosciations, the most important bodies for maintaining standards.

The recommendation which will undoubtedly attract the most attention is that "the costs of medical care be placed on a group payment basis, through the use of insurance." The discussion is extremely indefinite. The comments interspersed clearly reflect sharp divisions of opinion in the Committee.

It is suggested that "a state medical society might initiate and standardize the organization of group practice in local areas and serve as a negotiating or mediating body in making the arrangements for group payment." On the whole, however, the Majority Report seems to incline to a voluntary insurance scheme with subsidies from taxation.

There is also the conclusion that making "individual practice and not group practice the logical foundation of the whole system . . . has been one of the chief disadvantages which European countries have faced under compulsory insurance." Examples or evidence in support of this conclusion are not made available.

The Majority Report persistently emphasizes the importance of groups; it looks on insurance "as the most effective possible stimulant to the formation of such groups." It is hard to determine whether the groups are to be the basis or the objective of the program.

Confronted with the problem of the "control of competition," which has hitherto evidently produced deterioration in most of the schemes of contract practice which are discussed, the Majority Report proposes the following devices for its control:

"(a) Provision of medical service in increasing proportions by organized non-profit groups with community backing and control.

"(b) State regulation of the finances to assure actuarial soundness.

"(c) The formulation of general standards and policies, the regulation of charges, and the arbitration of difficulties by the state medical and dental societies or by an officially appointed medical board nominated in large part by the societies."

The Majority Report urges a study by professional groups with lay participants as a preliminary to the installation of any program.

In the final chapter, "The Challenge of the Future," appears recognition of the place of such professional associations. The report says:

"The coöperation of the professional groups in community or state leadership is essential. Their stake in these issues is very large; their interest is continuing. They should instigate as well as guide. The crucial point in the generalship of the forces at work is, perhaps, the development of a proper relation between the professional and the lay groups. The public should recognize the central place of the professional groups in determining standards and methods. The professions should recognize their ultimate responsibilities to the public. The control of undesirable commercial enterprises in this field will depend largely on the watchfulness of the professional bodies, on their ability to enlist lay coöperation, and on the development of sound and successfully operating non-commercial plans.

"Continued study of the complex problems of medical economics is of the first importance. The Committee's investigations have opened a way. Fortunately, professional societies are establishing bureaus and committees on medical economics. Because a university has the unique advantage of having both medical and social scientists in one organization, the Committee has formally recommended to the universities of the country that they conduct research in this field."

Minority Reports

Two minority reports and two statements constitute the views of those members of the committee who found themselves in conflict with the general tone or trend of the majority report.

FIRST MINORITY REPORT

The first minority report, which was signed by A. A. Christie, M.D., George E. Follansbee, M.D., M. L. Harris, M.D., Kirby S. Howlett, M.D., A. C. Morgan, M.D., Alphonse M. Schwitalla, Ph.D., N. B. Van Etten, M.D., Olin West, M.D., and Robert Wilson, M.D., draws attention to the failure of the Committee to show by facts that "organization" can accomplish what is claimed for it in the majority report. There is noth-

ing in the experience of the medical profession to show that the "Community Medical Center" is a workable scheme or that it would not contain evils of its own which might be worse than the evils it is supposed to alleviate. This Medical Center Plan is suggestive of the great mergers in industry in which mass production and centralized control are the principal features. It apparently disregards the fundamentals which make medicine a personal service and which require that the individual patient and not diseases or economic classes or groups be the object of medical care.

The objections to the Medical Center Plan are summarized as follows:

1. It would establish a medical hierarchy in every community to dictate who might practice medicine there.

2. It would be impossible to prevent competition among the many such centers necessary for large cities; cost would inevitably be increased by the organization necessary to assign patients to the various centers. This would add to the evils of medical dictatorship those of a new bureau in the local government with its attendant cost.

3. Continuous personal relationship of physician and patient would be difficult if not impossible under such conditions.

In the opinion of this minority group, the question of "Industrial Medical Service" has not been adequately or fairly dealt with in the majority report. For each of the favorable reports published (publications Nos. 5, 18 and 20) many instances could be cited wherein the results of industrial medical services have been exceedingly unfavorable. It is pointed out that in industrial medical services, mutual benefit associations, so-called health and hospital associations, and other forms of contract practice, no means have been found to prevent destructive competition between individuals or groups concerned with these movements. The studies published by the Committee show only the favorable aspects. They were selected because they were considered the most favorable examples of this type of practice in the United States. For each of these plans a score of the opposite kind can be found.

Utilization of subsidiary personnel is nothing new in medical practice. Already there is constant temptation in many fields to permit technicians to perform duties entirely unjustified by their knowledge and training. The minority expresses a word of caution relative to the dangers involved in permitting non-medical technicians to assume the duties which only physicians should undertake.

The Committee's first recommendation that medical service "should be furnished largely by organized groups of physicians, dentists" and so on is apparently predicated on the Committee's study on "Private Group Clinics." This minority group believes that the establishment of such clinics is in line of progress when they are a natural outgrowth of local conditions, but the studies published by the Committee, in the opinion of the minority, were far too few in number to constitute a safe base on which to erect so large and revolutionary a structure as is proposed. The majority report fails to consider the fact that multiplication of clinics or groups in large communities results in duplication of expensive equipment far beyond the needs of the community. Such a multiplication of medical facilities, instead of reducing overhead and the costs of medical care to the community, adds to this cost through the duplication of plants. It is significant to note that the overhead in private medical practice averages only about 2 per cent higher than for medical groups in the lower brackets of gross income. As the gross income rises, the ratio of overhead becomes progressively less significant.

Other disadvantages of group practice are: restriction of freedom of action in respect to vacations, study, travel, attendance on scientific meetings and even publication of medical articles to all members except the heads of the group; comparatively static income of members of a group except that of the owner or owners; salary cuts, then discharge of employees to reduce overhead in times of depression; disruption of groups through death or disability of some able man or men around whom the group has been built, and the difficulty with which physicians are able to find employment in another group or are able to enter private practice when a group closes.

In spite of the extensive data available on the insurance systems of Europe and the evidence which can be produced to show that voluntary health insurance schemes have everywhere failed, the majority of the Committee makes the definite recommendation that this country adopt the thoroughly

discredited method of voluntary insurance. A system of voluntary health insurance tied to the visionary medical center plan, which is offered as the "keystone" of all medical service, would plunge the medical profession into similar or more difficult problems than have been experienced by the European profession in its struggle against the various European insurance schemes. In the United States, contract practice is essentially health insurance and has already given rise to destructive competition among professional groups, inferior medical service, loss of personal relationship of patient and physician, and demoralization of the profession. It is clear that all such schemes are contrary to sound public policy and that the shortest road to commercialism of the practice of medicine is through the supposedly rosy path of insurance.

The objections to compulsory health insurance are almost as compelling to this minority group as are those to voluntary insurance. Proof of the evils of the compulsory system is at hand in our own experience in this country with the only compulsory system with which we have yet had to deal, workmen's compensation insurance. Under workmen's compensation, groups are soliciting contracts, often through paid lay promoters; laymen are organizing clinics and hiring doctors to do the work; standards of practice are being lowered; able physicians outside the groups are being pushed to the wall; the patient is forced by his employer to go to a certain clinic, and the physician is largely under the control of the insurance companies. These are not visionary fears of what may happen but a true picture of widespread evils attending insurance practice. No better example should be needed of what must happen to medical care if compulsory insurance is extended to families.

The total cost of medical care is usually increased when it is paid for through insurance, because the cost of operation of the insurance plan must be added to the cost of medical care and the number of persons sick and the number of days' sickness per capita always increase under any insurance system. The Majority Report registers approval of insurance but disapproves of insurance companies. The minority group agrees with the principle that, in any contract practice plan involving an insurance principle, this principle should be applied through a nonprofit organization. The minority group has not attempted to marshal all the facts or arguments that can be used against health insurance but has endeavored to show that there are great dangers and evils in insurance practice which must be set over against the advantages of distributing the costs of medical care by this method. The minority group believes that the majority report has minimized these dangers and evils.

The minority recommendations follow:

"I. The minority recommends that government competition in the practice of medicine be discontinued and that its activities be restricted (a) to the care of the indigent and of those patients with diseases which can be cared for only in governmental institutions; (b) to the promotion of public health; (c) to the support of the medical departments of the Army and Navy, Coast and Geodetic Survey, and other government services which cannot because of their nature or location be served by the general medical profession; and (d) to the care of veterans suffering from bona fide service-connected disabilities and diseases, except in the case of tuberculosis and nervous and mental diseases.

"II. The minority recommends that government care of the indigent be expanded with the ultimate object of relieving the medical profession of this burden.

"III. The minority joins with the Committee in recommending that the study, evaluation and coördination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions, and that the coördination of rural with urban services receive special attention.

"IV. The minority recommends that united attempts be made to restore the general practitioner to the central place in medical practice.

"V. The minority recommends that the corporate practice of medicine, financed through intermediary agencies, be vigorously and persistently opposed as being economically wasteful, inimical to a continued and sustained high quality of medical care, or unfair exploitation of the medical profession.

"VI. The minority recommends that methods be given careful trial which can rightly be fitted into our present institutions

and agencies without interfering with the fundamentals of medical practice.

"VII. The minority recommends the development by state or county medical societies of plans for medical care."

SAFEGUARDS IN DISTRIBUTION OF MEDICAL COSTS

This minority group agrees that any plan for the distribution of medical costs must have the following safeguards:

1. It must be under the control of the medical profession. (A "Grievance Board" to settle disputes, having lay representation, is permissible and desirable.)
2. It must guarantee not only nominal but actual free choice of physician.
3. It must include all, or a large majority of, the members of the county medical society.
4. The funds must be administered on a nonprofit basis.
5. It should provide for direct payment by the patient of a certain minimum amount, the common fund providing only that portion beyond the patient's means.
6. It should make adequate provision for community care of the indigent.
7. It must be entirely separate from any plan providing for cash benefits.

COUNTY SOCIETY PLANS FOR MEDICAL CARE

The minority group states its reasons for favoring thorough trial of the county society plan for furnishing complete medical care as follows:

1. It places responsibility for the medical care of the entire community on the organized physicians of the community.
2. It places medical care under the control of the organized profession instead of in the hands of lay corporations, insurance companies, and so on.
3. It places responsibility for the quality of service directly on the organized profession. It is in fact the only plan that guarantees quality of service and makes it the only basis of competition.
4. It removes the possibility of unethical competition because it includes all the physicians of the community and fixes a fee schedule.
5. Solicitation of patients, underbidding for contracts and other evils of the usual insurance plans are eliminated.
6. Freedom of choice of physician is assured and the essential personal relationship of physician and patient is thereby preserved.
7. It is the only plan that includes all classes, from the indigent to the wealthy.
8. It is adaptable to every locality, both urban and rural.
9. It provides for a minimum cost of administration by operating on a nonprofit basis.
10. It provides for payment, by every patient with income, of a certain minimum amount before the insurance is in operation. The minimum rises with the patient's income. This provision alone will operate to avoid many abuses in all other types of insurance practice.
11. It provides for means of certification of disability separate from the attending physician.
12. Cash benefits do not form a part of the plan.

SECOND MINORITY REPORT

The second minority report, which was signed by Herbert E. Phillips, D.D.S., and C. E. Rudolph, D.D.S., is in agreement with the first minority report in strongly emphasizing the necessity of maintaining professional standards and the position of the general practitioner. This group agrees with the first minority group that the majority is unduly critical of the professions. The second minority group joins with the first in declaring the medical center plan of the majority a utopian concept involving many problems too visionary or problematic to justify inclusion in an authoritative report of this kind.

The second minority group believe that the method of payment for medical service need not interfere with the highest professional standard or the close personal relations between practitioner and patient. Furthermore, this group is of the opinion that the introduction of compulsory health insurance under professional control would eliminate the objectionable features. It is in accord with the first minority group on the development by state or county medical society of plans for medical care.

The statements of Edgar Sydenstricker and Walton H. Hamilton are largely criticisms of the methods used by the Committee. They are of the opinion that the preliminary studies and the recommendation do not deal adequately with the fundamental economic questions which the Committee was formed primarily to study and consider.

STATE SECRETARIES AND EDITORS MEET IN CHICAGO

The annual meeting of Secretaries of State Medical Societies and Editors of State Medical Journals was held at the Hotel Palmer, Chicago, November 18 and 19, 1932. Also present were a number of Presidents and Presidents-Elect, and other representatives of State Medical Societies. The Michigan State Medical Society was represented by President J. M. Robb, President-Elect George Le Fevre, Dr. B. R. Corbus, Chairman of the Council, Dr. F. C. Warnshuis, Secretary, and by the editor. A departure was made from the usual custom in which the program is provided by a selected group of State Editors and Secretaries. This time, according to Dr. A. R. Mitchell, Chairman of the Board of Trustees of the American Medical Association, who called the meeting to order, it was thought well to have the program by prominent non-members of the organization who were in a position to speak with authority on the evils of contract practice and insurance schemes that were fast becoming a menace to the profession of medicine. Dr. Mitchell said that we had come to the parting of the ways. Were we to run our own profession, or were we to permit outsiders to step in, and, through exploitation, manage it for us? Business and medicine were, he claimed, incompatible. Business sought to increase its profits by enlarging its field of operation and by creating desires; medicine, on the other hand, sought always to bring about conditions which would render its services unnecessary.

The interest in the subject brought representatives from every state in the Union.

The opening address was by Dr. E. H. Cary, President of the American Medical Association. Dr. Cary spoke in part as follows:

"The most important of our medical gatherings is this convocation of the protectors of the faith—this annual meeting of the custodians of medicine's most valuable agencies, for reaching its devotees in the most remote places in this fair land. To me, this is the most important session of medical men I have met with during my administration, for medicine must meet important problems arising both within and without the profession, and they cannot be solved without your consideration and determination."

The days were spent in a discussion of the effects on the profession of contract practice in its various forms, which included group insurance in which the physician was controlled by a third party. Dr. Cary went on to say that contracts made by hospitals insuring people have grown from offering hospital care alone, to a combination of hospital and medical service which would undoubtedly involve the medical profession in harmful and undignified practices. Such problems necessarily concerned county medical societies and through them the state medical society and finally the judicial council of the American Medical Association. A recent opinion of the judicial council was expressed as follows: "A fundamental of medical ethics is that anything which in effect is opposed to the ultimate good of the people at large is against sound public policy and therefore unethical."

Dr. Cary considered it the duty of county units to propound a policy acceptable and workable to solve the problem of medical care as it related to the under-privileged. No plan, however, was likely to work until the profession was unified in its desire to meet and solve such problems. He spoke of the final report of the Committee on the Cost of Medical Care and mentioned the fact that the public would have its choice between a majority and minority report. The public should be interested in avoiding the pitfalls of any system which discredited the awards of competitive medicine—those rewards which appealed to the highest type of young people and which magnified the values occurring in a selected personnel which should compose the profession. Medicine opposed any system which threatened the advance of scientific knowledge and

Editorial Note: The editor has endeavored to present the papers and discussions at the annual meeting of state secretaries and the editors of state medical journals in summary. No attempt has been made to report the addresses verbatim. While endeavoring to present the arguments in condensed form the speakers are not responsible for our omissions or phraseology, a fact that will appear at once to the critical reader. These papers and discussions will be printed in full in coming numbers of the Bulletin of the American Medical Association, and it is hoped that each member will peruse them in their original form.

progressive development of the healing art. In every country in which medical practice had become subservient to outside control, progressive scientific medicine and the best medical care were found utterly incompatible.

"When the county society," said Dr. Cary, "as a unit becomes the chief factor in organizing a plan (for the care of the under-privileged) then medicine will be able to surmount what can be considered the catastrophic cost to individuals and families who are unfortunately sick. When this is done, the sacred rights of personal confidence between patient and physician will be preserved, and at the same time a method will be supplied for meeting the economic necessity of the cost of sickness, which might be entirely beyond the means of the afflicted ones."

Dr. Cary went on to mention that the American people were realizing that there was a limit to their capacity to pay taxes. Everyone was becoming aware of the danger to the state which had come in the wake of the tax burden which now existed. Leaders of both political parties, leaders of business, veterans of the world war, and citizens throughout the land recognize the impossibility of continuing a policy towards veterans not injured in the war which had added four hundred and fifty million dollars to the over-burdened taxpayers, which sum was being paid out by the government. There was no difference of opinion in having the government care for all veterans with service connected disabilities. This was an important matter to the physicians of the nation, since without physicians no country would dare go to war. The medical profession of the United States should demand the repeal of 202-10 amendment which directly concerned us and should join all other earnest citizens in a desperate effort to bring the budget of the United States government back to a reasonable basis.

Dr. Cary summarized his address as follows:

1. Should we or should we not advocate as a basic principle the Iowa* plan of dealing with indigency?

2. Should we or should we not develop a comprehensive inclusive county medical society plan of creating a budgeting system whereby the catastrophic needs of the people can be met at a cost within the reach of the families who are unfortunately sick?

3. Should we or should we not condemn all hospital insurance schemes for the care of the sick? Or, is it possible to discriminate and say to hospitals that no plan will be recognized as worthy which includes the physician's services, but such hospitals are to be opened to all members of the county medical society, preserving free choice of medical service on the part of the patient.

4. Should we or should we not bring all the pressure we have to bear upon the December Congress to establish a different policy toward the hospitalization of nonservice disabled veterans?

5. Should we or should we not demand the repeal of the 202-10 amendment which has opened the government hospitals to all nonservice disabled veterans?

6. Should we or should we not strive both to limit the number of new medical graduates and to develop the field of immunization and preventive medicine for private practitioners?

7. Should we or should we not fight with all the strength of the body medical in its individual and collective entity, the trend to state medicine in all of its ramifications which threatens to destroy our professional integrity and material remuneration and to retard the progress of our science?

DR. PUSEY'S ADDRESS

Dr. William A. Pusey of Chicago, a former president of the American Medical Association, spoke on The Principles and Policies of the Medical Profession in Its Public Relations. Society looked upon the medical profession as its trustee in disease and injury and the profession willingly accepted that responsibility. To fulfill such an obligation it must attract the best men. Medicine had also a duty to society at large in the matter of encouraging and furnishing means of disease prevention. Business in controlling medicine subjected it to lower standards by placing it on a competitive basis in the endeavor to procure medical services at the lowest possible terms. The universality of the need for medical service made medicine more subject to socialization than any other calling. Dr. Pusey maintained that from eighty to ninety per cent of medical service was best rendered by the

*See Editorial, Journal Michigan State Medical Society, Vol. 30, page 44.

physician in private practice in his office. Here the patient met his physician personally and the physician was stimulated to his best effort to serve him.

Medicine did not offer wealth. That should not be the objective of the physician. It must, however, insure him an independent career. Men must have an opportunity to develop the best that is in them. Medicine should therefore insist on maintaining control of its own affairs. It had been an autonomous profession for hundreds of years. It has been characterized by altruism and unselfishness more than any other calling, striving always to render its services unnecessary.

Medicine must continue to be dynamic, willing to change its practice as conditions demand. This did not mean, however, that it should make concessions to shortsighted expediency. Medicine had the oldest code of ethics of any profession, going back to the Hippocratic oath. It was the duty of medicine to affirm the spirit of that oath.

The speaker condemned any form of medical or surgical practice which prevented the free choice of a physician on the part of the patient or which made the doctor an employe of a corporation except in those rare instances of expediency. He also referred to the practice of medicine by hospitals, which he strongly condemned, inasmuch as such institutions used their prestige, endowments and exemptions in unfair competition with the independent practitioner. Governmental practice of medicine was also objectionable inasmuch as *quantity* practice was encouraged to the detriment of *quality* practice. No community which tolerated such questionable forms of practice could hope to retain high grade physicians.

Dr. Pusey concluded with the following summary of his twelve points in the principles and policies of medicine.

Principles. 1. Medicine is the trustee of society in the care of the sick and injured; its policies must always be governed by this fundamental fact.

2. The good of society must be the sole aim of its public policies and the good of the patient the first consideration in the relations between physicians and patients.

3. Medicine's first responsibility must be to see that its services are available to all men.

4. The public interest demands the most competent medical profession possible. Medicine must be an attractive profession to compete successfully with other professions for the ablest young men.

5. In the sense that every calling from which a living must be gained is a business, medicine is a business; it must accept the competitive conditions of practical life but, as a profession of high ideals, it must seek to prevent selfish commercialism.

6. Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically diagnosed and treated by a competent individual general practitioner.

Responsibilities. 7. The services of medicine include (a) the practice of medicine; (b) the promotion of preventive medicine and the public health; (c) the fostering of research and the increase of knowledge.

8. Medicine's chief concern must be for the individual physician; the service rendered by individual physicians in the aggregate constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physicians who give it.

Rights.—9. The medical profession asks for its practitioners: freedom of opportunity to develop to the limit of their individual capacities.

10. It asks a career of independence under conditions of free and dignified competition.

11. It asks remuneration sufficient for reasonable comfort for the individual and for his family.

12. In its ideals of independence, medicine has a right to control its own affairs. Its history of capacity and altruism justifies this claim.

DR. DEAN LEWIS SPEAKS

Dr. Dean Lewis, president-elect of the American Medical Association, in his address declared that the sacred relation between patient and doctor must be preserved and the inalienable right of the patient to the physician of his choice must be defended at all cost. Referring to the cost of medical care he went on to declare that it was not any higher than anything else during the post war period. Everything had cost more.

Dr. Lewis deplored the tendency of the clinician to leave the matter of diagnosis to the laboratory technician. During the past

twenty years we witnessed the passing of the old time clinician and the advent of the laboratory technician in his place. The function of the physician, he maintained, was to study his patient's condition, to make a diagnosis and to use the laboratory simply to check over his findings.

The speaker dealt with the hospital situation. Hospitals should be designed as hospitals and not as palaces for the rich. Much of the high cost of medical care was due to the refusal of patients, or, rather, their friends, to accept hospital accommodation within their means. It was a difficult matter to get patients to accept moderately priced hospital rooms.

Referring to university hospitals, Dr. Lewis was thoroughly opposed to any university clinic competing with the individual practising physician.

Dr. Lewis claimed that the disparity of the fee of the surgeon and that of the internist should be adjusted. For men of equal mental ability the remuneration should be equalized. The surgeon receives less and the internist more.

The speaker was opposed to the two year rotating internship for medical graduates, which resulted in competency in no one department. The man who knew one thing well was much to be preferred to him whose knowledge was a smattering of a number of things.

DR. FOLLANSBEE SPEAKS

The Octopus of Medicine was the title of a paper presented by Dr. G. E. Follansbee of Cleveland, Chairman of the Judicial Council of the American Medical Association. He went on to describe the octopus as an ugly disgusting insensate creature with long arms and tentacles with which it destroys everything that gets within its grasp. Dr. Follansbee's paper was a strong condemnation of physicians who commercialized medicine by hiring out to business and industrial concerns whose purpose was to secure medical services at the lowest possible cost. In industry the machine had largely displaced workers. What shall become of the man displaced by the machine? There was nothing left for him but to become a pauper. Medicine, he claimed, had not been spared by business and industry. When business and industry found it to their advantage to utilize medicine there was always a willing doctor available. Such exploitation of the medical profession made a simple commodity of what should be a high grade professional service. People could not judge rightly of high grade professional service as they could of material things, otherwise we would not have cults and patent medicines.

The address was an argument presented against the exploitation of medicine by interests other than the patient and the doctor.

Dr. R. G. Leland, Director of the Bureau of Medical Economics of the American Medical Association discussed the subject Some Dangerous Features of Contract Practice. Dr. Leland stated that there were over four hundred instances of contract practice of various forms in operation in the United States today. This paper was a description of many of these schemes, describing their merits as well as the objectional features that rendered them detrimental to the practise of medicine for which organized medicine in the United States stood.

Dr. D. A. MacGregor of Wheeling, West Virginia, discussed the subject of contract practice in West Virginia. Since this paper dealt with conditions peculiar to Virgina which would be largely inapplicable to Michigan, the papers, as already intimated, will later appear in the Bulletin of the American Medical Association.

DR. J. M. ROBB ON HEALTH INSURANCE

Dr. J. M. Robb, of Detroit, President of the Michigan State Medical Society, read a very interesting paper on the matter of Health Insurance. Dr. Robb deplored the fact that the present financial depression disposed many doctors to render services on conditions which in normal times they would never consider. It was a serious mistake, he claimed, to allow a middleman to gain a foothold between the doctor and his patient, as was the case in many of the proposed health insurance plans. The object of the majority of insurance schemes was to control a social group which the general practitioner had been accustomed to serve and from whom he derived his livelihood. To be a party to any large scale insurance plan is to take from the ranks of the medical profession patients on whom they had always depended.

The tendency of society in general, he said, was to become accustomed to mass

movements as taught us by the conduct of the great war. There is a great tendency to discount the old spirit of self reliance as once practised by individual men and women.

We had workingmen's compensation which tended to relieve the patient of responsibility. There is also a disposition on the part of wealthy persons to establish clinics for the purpose of doling out medical services with a free hand. Then there was the legalized abuses in the care of veterans, all of which were examples of the generosity of American wealth to dispense medical services at the expense of the medical profession. Similar organizations now seek to placate the people with health insurance with a handsome profit for themselves, unwittingly laying the foundation for their own destruction since they are driving the entering wedge of socialism through the agency of the medical profession. The medical practitioner, according to Dr. Robb, was waging a battle to maintain his very existence with almost every force arrayed against him. Was it any wonder that the average doctor was bewildered and confused?

Any insurance plan must necessarily include only a small percentage of doctors in any community, impoverishing the remainder who must subsist on the residue of the population that is not involved in the insurance plan. The physician allowing his services to be exploited may have a steady income for a time but would be subjected to the possibility of being dismissed or having his income regulated by competition. There would be little incentive for a physician so hired to pursue graduate instruction, so that eventually his medical practice would degenerate into mere mechanical routine. He would, in short, according to the speaker, be an artisan in the employ of a group whose primary interests are profit. The wise physician will not ignore these movements inasmuch as every graduate of medicine will be affected, most of them adversely, as time goes on. If not active, each should lend his moral support at least to those members of the medical profession who are fighting the battles.

Dr. Robb went on to outline briefly some of the so-called plans that had been suggested, referring to the articles appearing in the Journal of the American Medical Association, during the fall under the heading new forms of medical practice. He also cited the experiences of the medical profession in England and Germany. What had been predicted by the professions in these countries when insurance schemes were in the offing had become only too true. The elimination of individual responsibility has encouraged malingering and the workers had degenerated into recipients of the dole. We should, Dr. Robb went on, learn from the experience of European countries. Those with the highest percentage of supplied and mostly lay-controlled medical care give their people the most perfunctory type of medical service. Malingering, he said, soon became a great problem confronting all health insurance schemes. It might be eliminated by the separation of health insurance from indigent insurance. The medical service rendered by the physician should be separate and distinct from any dole to the patient for other purposes. The doctor would thus avoid becoming a partisan to raids on insurance funds at the request of malingering patients. A meddling third party, the doctor continued, always constitutes an obstacle to efficient medical service. France has been wise enough to exclude the so-called third party.

Every state medical society should have a central bureau, the function of which should be to compile data and to study all social experiments being made in the state. This information might be used to guide legislative thought and action. The medical profession was, he said, the only group qualified to pass upon the problems of medical service and all schemes of health insurance depended upon the service given by physicians. Organized medicine, therefore, must sponsor such application of the health insurance principle if it is to control its own future, otherwise the scientific and cultured level of the profession will eventually become lowered and the health and happiness of mankind shall pay for the folly on the part of the profession for letting its service get beyond its control.

DISCUSSION

The papers of the day were discussed by the members of the organization. Many secretaries and editors asking for something definite to take back to the various state and county societies. As one speaker expressed

it, the diagnosis of the medico-economic situation was clearly stated, but what of the treatment? What was the remedy? Some thought the abuses of contract medicine should be corrected, if a remedy were possible, by the American Medical Association. Dr. Woodworth, the legal adviser of the Association, said that he thought it necessary to make clear the distinction between legitimate contract practice and contract practice that was unethical, and, if persisted in, would result in the deterioration of medical practice. There existed conditions in which contract medicine was the only form of practice feasible, for example, in mining districts, where living conditions were such that no physician could consider such location without an assured income.

No definite conclusion was reached except that, as two speakers maintained, of the four hundred and five schemes in practice in the United States, conditions varied to such a degree that they could be studied and dealt with only by the local unit, the county medical society. Dr. Olin West, manager of the American Medical Association, in a vigorous address advocated a committee on public affairs to consist of the strongest personalities in the county society, men of judgment and tact, to deal with the different insurance schemes, inasmuch as the disciplining of members was in the hands of the county units. He referred to the system of medical ethics, the violation of which always worked to the detriment of both the public and the profession. No profession could long endure that was not founded on an ethical basis.

Dr. Fishbein emphasized the importance of intelligent contact between the profession and the public. The profession should discard the literature (using the word in a very unliterary sense) that came to their desks every month with advertising matter interspersed with papers, some by men who should know better than to contribute to such publications. There was a tendency towards too many independent medical organizations which tended to distract rather than unite the profession in a common cause.

The papers and discussions read at the meeting will appear during the coming months in the Bulletin of the American Medical Association, where they will be available to each and every member of the county and state medical societies. There never was a time in the recent history of organized medicine when it was so necessary that every physician keep informed in regard to the trends in medicine as well as the factors that tend to the ultimate destruction of medicine as a noble learned profession.

RELATION OF ALKALOSIS TO PEPTIC ULCER

HENRY A. RAFSKY, LOUIS SCHWARTZ and ALEXANDER W. KRUGER, New York, administered excessive doses of alkalis to sixty-one patients with peptic ulcers, by a method in which initial small doses were followed by progressively larger doses until there ensued a complete cessation of the symptoms. The carbon dioxide combining power of the blood plasma and the blood chlorides did not reveal any evidence of alkalosis in any of these cases. Patients with renal disease and allergic persons were treated more cautiously by this method. Patients with pyloric obstruction and extreme degrees of gastric hypotonia were not treated by this plan. Two patients, who were treated according to the Sippy method, developed severe symptoms of alkalosis and showed definite biochemical changes. In order to minimize the danger of alkalosis resulting from excessive alkaline therapy, more attention should be directed to the method of administration as well as to the type of patient to receive this form of therapy.—*Journal A. M. A.*

EXPERIMENTALLY PRODUCED PEPTIC ULCERS: DEVELOPMENT AND TREATMENT

FRANK C. MANN and JESSE L. BOLLMAN, Rochester, Minn., point out that acute gastric or duodenal ulcer has been produced experimentally by numerous methods, but the subacute or chronic ulcer has rarely been produced in animals. They present a review of the results of investigations carried out in their laboratory over a period of years on experimentally produced peptic ulcer. The lesion they have studied simulates both macroscopically and microscopically peptic ulcer as seen in man. They have determined some of the factors responsible for its causation. They have been able to observe the development of the lesion from its incipiency to its maturity when it had become a typical chronic peptic ulcer as seen in man. They have also been able to make the chronic lesion heal and to observe the process whereby it heals. The studies have given them a clear, composite picture of the entire life cycle of the experimentally produced peptic ulcer.—*Journal A. M. A.*

BOSTON MEDICAL
37
LIBRARY

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
B. H. VAN LEUVEN, M.D.....Petoskey

Editor
J. H. DEMPSTER, B.A., M.D.
641 David Whitney Bldg., Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 641 David Whitney Bldg., Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

JANUARY, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

INROADS INTO THE PRACTICE OF MEDICINE

It would seem superfluous to quote or to refer to reading matter which appears in the Journal of the American Medical Association, for doubtless every reader of this Journal reads also the Journal of the American Medical Association and our endorsement may not mean much to the great national Medical Journal. However, among the able articles in the Journal of the American Medical Association appeared recently a series on New Forms of Medical Practice which will bear serious study.

The whole social and economic system of the world has been undergoing an experience unprecedented in the history of our present civilization. Less than three centuries ago, following the invention of the steam engine, was the final transition from feudalism to capitalism; today there appears a transition from capitalism, to what? Who knows? As a great profession whose history is lost in the undated past, medicine is being affected by the same factors that are at work in other fields. Among these is the movement towards organization of medical service for profit by laymen on the lines of so-called big business. Shall we drift with the tide or shall we endeavor intelligently to understand and possibly to direct the forces that are making inroads upon our calling? Regarding some of these newer forms of medical practice, according to the Journal of the American Medical Association, "In general, all the schemes described seem to have been developed primarily for profit to the promoters rather than with any sincere purpose to render a better type of medical service or to lower the cost of good medical care. Indeed, as has been said previously, most of them attempt to lower the cost of medical care either by exploiting the services of salaried physicians who are willing to sell their medical birthrights for the promoter's mess of pottage or by providing what is essentially an inferior quality of medical service."

Some lay organizations are presumed to be of a philanthropic character to provide medical service for the indigent. Even these, however, are of the nature of the so-called "gift horse" and there is a tendency to overstep the bounds of charity. The service that they are supposed to render has been better taken care of by the independent physician. The Journal of the American Medical Association continues:

"From time immemorial, physicians have rendered service to the poor without counting the cost of such service. There are no doubt available millions of instances in which physicians have actually dipped into their own pockets to correct the economic conditions responsible for the illnesses of poor patients. Instances too numerous to mention have occurred in which a doctor, called to a patient with tuberculosis or pneumonia, and realizing that the essentials necessary for improvement were nutrition and warmth, has himself paid the cost of these necessities. This, however, differs greatly from the problem raised by the establishment of corporations to render medical service to persons of the middle class. Every one admits the desirability of organized and institutional care of the poor. Good physicians know that the type of care

given to the poor is scientific but that it is not comparable with the type of medical care available to those who can purchase the best. The vast majority of people are in the middle class."

It would be far better were the great middle class trained to provide for illness as they are for other things. Insurance, as we said in our editorial of last month, is a good thing and should be encouraged on the condition that it leaves the citizen free in the choice of his doctor, consultant or hospital. After all, in spite of the developments in medicine, the cost of medical service, comparatively speaking, is not so great as many writers in lay magazines would lead their readers to believe. Compared with the cost of many luxuries, such as tobacco, cosmetics, or even the maintenance of the automobile that is driven for pleasure, the cost of medical care for the average family is a negligible matter. The tendency of the charitable clinic and other forms of near-charitable medical service has been to depreciate the value of it. In the average city-owned hospital every personality concerned is paid except the doctor, whose services are free. It is time that a reaction in the opposite direction took place, especially in the matter of sense of values. We feel that, after all, the old personal relation between doctor and patient must be preserved, a thing impossible under a so-called socialized or corporation practice of medicine.

MEDICAL POLITICIANS

We are in favor of medical politicians if by the term is included those members of the profession elected to positions which constitute the organization of the medical profession into county, state and national associations. It is inconceivable that the term can mean anything else. The term politician in its generic sense has become one of reproach since so many have sought political positions purely for emoluments of office. What pecuniary advantage is it to hold an office in the gift of the medical profession? There is nothing but hard work and sacrifice of personal interests, if the incumbent is sincere.

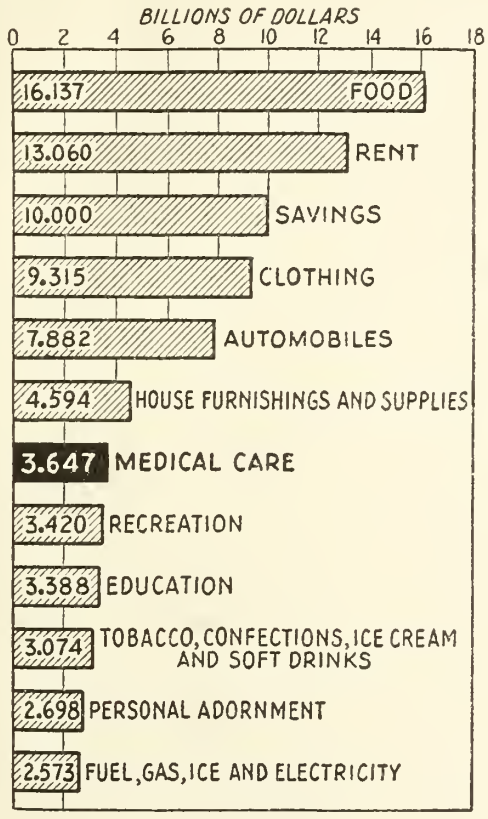
Every body of workers has found it of advantage to organize, whether those who toil with their hands, or those whose power to serve is in the domain of the intellect. Any quarrel we have ever had with labor unions has not been with unions as such, so much as the fact that the object has been too often sordid and confined to advancing wages rather than self-improvement. No one can honestly charge the medical profession with organization for the purpose of economic advancement. Our organizations have been always for the purpose of advancing the science and art of medicine. The time has come when the integrity of the medical profession is being threatened. The medical politician (using the term in a good sense) was never more necessary than at present. May we have men that can take occasion by the hand and preserve the freedom of the independent practitioner. Those who do not wish to serve, or cannot, should give their moral support at least to those who will and can sponsor the best interests of the profession. It was never more urgent that all reputable men should be members of their county medical society. By so doing they are supporting the cause of medicine. By remaining on the outside they are partaking of the benefits of organized medicine without in any way contributing to their own welfare.

There are physicians who prefer to pursue their calling alone and to work without the benefits of attendance upon medical society meetings. That is their concern alone. They should not lose sight of the fact, however, that no one really lives unto himself, that if protection of his profession by law means anything he owes it to those members who at a personal sacrifice study medico-social and economic problems and secure the ear of legislators in their interest, which is also in the interest of the great public served by the medical profession in time of need.

THE SUPPLY OF PHYSICIANS EXCEEDS THE DEMAND

A commission organized seven years ago by the association of American medical colleges made its final report early last month. The commission found the supply of doctors greater than the demand by approximately 25,000. According to the report there is particularly an excess of specialists. There is no doubt that the supply of doctors is in excess of the demand. This is true also of lawyers, of engineers, of automobile manufacturers, of shoe factories, of everything. The ratio of physicians to population is one

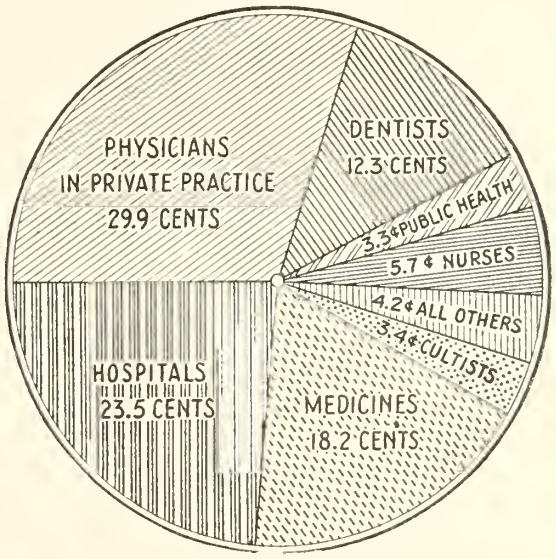
to 780 persons. According to the commission, one to 1,000 or 1,200 persons would be more satisfactory to all concerned. Some remote communities not able to support a physician should be provided with one whose income should be supplemented, if necessary, out of public taxation in some instances the physician should be on full time salary.



(From *New York Times*, Dec. 5, 1932)

THE PLACE OF MEDICAL CARE IN OUR 1929 EXPENDITURES.

An adequate distribution of physicians so as to provide for remote and sparsely settled districts would not solve the problem of over-supply, for the simple reason, as we have said, that there is an over-supply of nearly every service or commodity that can be mentioned. The remedy is not so simple. Elsewhere appears a diagram showing the relative cost of items that constitute medical care. Physicians in private practice get 29.9 per cent of the dollar cost while 25.8 per cent goes to patent medicines, cultists and to other items that might well be dispensed with to the great benefit of the people at large. One thing that might be done to advantage would be to confine the practice of medicine to those who have fulfilled the requirements of the various states for medical license. The matter of limiting the numbers of medical graduates is being discussed. If this is done with discerning wisdom the result will be good; by this we mean that every opportunity should be held out to the young man of first class ability to study medicine even though his finances be limited. Many successful doctors have been among those to whom the fees of some of our best medical colleges would have proved an unsurmountable barrier. To limit medical education to the well-to-do will eliminate a class of physician who has been willing in the past to endure a certain initial privation and to locate in small communities.



(From *New York Times*, Dec. 5, 1932)

OUR MEDICAL DOLLAR AND HOW IT WAS SPENT IN 1929.

THE COMMITTEE ON THE COST OF MEDICAL CARE

(The New England Medical Journal)

The United States is said to be the only country in the world in which a substantial group representing the professions concerned with medical care have united with a group of social scientists and members of the general public in a careful study of the problems and needs of the situation. The subject is one in which there will be divergence on some points, but there can hardly be any difference of opinion that the present situation in medical service is neither satisfactory to the public nor to the profession; that many trends in economic life and in the scientific progress of medicine itself compel substantial changes; and that changes will be more

advantageous to all concerned if made as a result of deliberate, purposeful and coöperative action.

An answer must be given to one important question and that is: Will organized medicine take its place in the solution of the problems now before this country respecting medical service to all the people?

THE I. Q. OF THE CLINIC DOCTOR

The annual report of the Committee on Economics of the Medical Society of the State of New York properly states that the "unrestricted and unconditioned access to clinics and hospitals for free medical service is a disgraceful prostitution of a traditionally charitable and indulgent medical profession." This, of course, refers to New York City, where persons are not "certified for indigency" before being permitted to receive free mdical care, as in the rural parts of the State under the public welfare law.

What is the matter with the doctors who unprotestingly staff these clinics and hospitals? Is it just traditional charity and indulgence? Is it just science and research? What about the intelligence quotients of these men?

If these times cannot awake men to patent abuses which they themselves are fostering we have a right to question, not their characters, but their brains.

These paragraphs are from the Medical Times and Long Island Medical Journal. We print them here because we believe they have a wider application than in New York City.

PREVENTION

'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant;
But over its terrible edge there had slipped
A duke and full many a peasant.
So the people said something would have to be done,
But their projects did not all tally.
Some, "Put a fence around the edge of the cliff,"
Some, "An ambulance down in the valley."

But the cry for the ambulance carried the day,
And it spread through the neighboring city;
A fence may be useful or not, it is true,
But each heart became brim full of pity
For those who slipped over the dangerous cliff.
And dwellers in highway and alley
Gave pounds or gave pence, not to put up a fence,
But an ambulance down in the valley.

Then an old sage remarked: "It's a marvel to me
That people give far more attention
To repairing results than to stopping the cause,
When they'd better aim at prevention.
"Let us stop at its source all this mischief," cried he,
"Come neighbors and friends, let us rally;
If the cliff we will fence, we might almost dispense
With the ambulance down in the valley."

"Oh, he's a fanatic," the other rejoined;
Dispense with the ambulance? Never!
He'd dispense with all charities, too; if he could.
No, no, we'll support them forever!
Aren't we picking up folks just as fast as they fall?
And shall this man dictate to us? Shall he?
Why should people of sense stop to put up a fence,
While the ambulance works in the valley?

—Joseph Malins in *The Public.*

MEDICAL ECONOMICS

TRENDS IN MEDICAL ECONOMICS*

LLOYD L. SAVAGE, M.D.
Caro, Michigan

In order fully to appreciate the arrangement we have made with the Board of Supervisors of this county, I have been asked by several members of the society to review briefly the trends in medicine that pertain to the economic side. This is apparently in order, according to the articles recently appearing in the daily papers.

The world is in a state of flux at this time, and minority groups are attempting to foist upon us some new and radical ideas. Some of these ideas might prove very wonderful, but some of them are hopelessly wrong in fundamentals, as the eighteenth amendment has proven to be. Just at present there is a great agitation in lay and medical periodicals to reorganize the medical profession so that the dear unsuspecting public will be insured of perfect medical care at cost. The process seems to me to be to focus attention upon an undefended spot, to blind the public to the greater inconsistencies in the life of the average man. This time the attention is directed to the undefended medical profession. I say undefended, because we are often spoken of as the great medical trust, although we who are of it know so well how false is such a charge. Great tears are now being shed for the great white collar class who have to pay for all the medical care of the less fortunate brethren. The main reason for this smoke screen is to cover up the colossal failure of the great organized business world that has overshadowed everything with its rapid growth and the magnitude of its institutions.

The past fifty years have seen the development of great industries and business organizations, which with their towering buildings and enormous capital have put to shame the earnings of the lowly doctor. Naturally the medical profession, being widely scattered, very silently carrying on its work, cannot show up favorably with the great bally-hoo of the business world. Yet it is apparent that the leaders of business desire to cover up the great blunders of the past few years by pointing condemning fingers at the medical service of this country and demand that we reorganize somewhat after the plans of medical service in Europe. There are two minority groups particularly interested in reorganizing medical practice. One is the insurance group who would underwrite the business and thereby profit on the doctor's labor. The other group is that of men in the profession who are already semi-socialized, whose positions would be advanced by the enlargement of their institutions.

It is for this reason that I wish to review briefly the plans in operation in several countries of Europe and in America so that you will all be familiar with what may be suggested for adoption by the medical profession of the United States in the next few months.

---

*Read before the Tuscola County Medical Society December 1, 1932.

AS IT IS DONE IN GERMANY

About the first example of socialized medicine began in Germany in 1889. At that time the industries of Germany were attempting to compete with the rest of the world. In order to produce merchandise and sell it in competition after passing the tariff barriers, they had to work their labor longer hours and for less wage than anywhere else. This was before the era of production methods of to-day. To compensate labor for this hardship, Bismarck offered them the Krankenkasse. This was to be a panacea; to quote Bismarck, "a leap in the dark to preserve the industry of Germany." The krankenkasse is a compulsory insurance that applies to all industrialized labor and middle classes. The insurance is divided between private companies and a government department. Insurance pays all medical and dental expense, and fifty per cent of the policy holder's wages for twenty-six weeks, formerly for thirteen weeks. Governmental insurance applies to those whose wages are below $900.00 a year. This includes about one-third of the population. The cost of this insurance is about 6 per cent of the wage. Ninety per cent of the people belong to some kind of insurance. Before the war only twenty per cent belonged to the insurance groups. The reports of diagnosis, progress and summary of the patient's illness make a colossal paper work for the doctor, which must be in his handwriting. When the head of the house has insurance, the whole family benefits. The bachelor pays the same rate as a father of six. In return they are given routine medical care. Expensive drugs and supplies are extra. Third class care in hospitals of the patient's choice is allowed. When compared as a whole, it is inferior to our care. Cases requiring more than twenty-six weeks are taken over by the city charities. The patient may choose his physician now, because all doctors are on the insurance lists. He is advised to choose one not more than fifteen minutes walk away. The first doctor called must be retained for three months regardless of the satisfaction rendered. Consultation is free. The patient must first obtain a sickness slip from the insurance office, which costs him twelve cents, one-half mark, and have it signed by his doctor. This fee has resulted in a reduction of fifty per cent of medical practice, and has caused many clean cases to become suppurating.

The doctor, twenty-five years ago, was prosperous and independent. Medical advancement was at a peak in Germany. Today the average income is less than $1,200 a year. There are four marks in one dollar, one hundred pfennigs in a mark. All fees are regulated. Obstetric cases pay a fee of twenty-five marks. The mother is paid 50 pfennigs a day for four weeks before and six weeks after delivery of a viable child. Office calls are paid for at one mark, house calls two marks, night calls four marks, appendix operation twenty marks, gastric resection forty marks, tonsillectomy five marks. These fees have recently been reduced 10 per cent. The general practitioner is allowed a total of four and three-fourths marks per patient per quarter, which adjusts the difference between severe and mild cases. Specialists are allowed ten marks per patient per quarter, because of their limited work. The public has become accustomed to specialization. The krankenkasse has: (1) destroyed the relationship between patient and doctor; (2) deadened the doctor's ambition to improve; (3) reduced the doctor's standard of living; (4) pauperized the patient, since he may as well be ill at 50 per cent wage as to get well and work (He merely reduces his standard of living. An investigation of one million cases proved that 56 per cent were malingering); (5) placed an impossible load on the doctor. The general practitioner is generally called a scribe. The best that can happen is now doing so. The insurance funds are bankrupt. The financial burden is proving too great for the taxpayer.

AS PRACTISED IN ENGLAND

England under Lloyd George, subject to the same industrial stress, enacted a system of socialized medicine similar to that of Germany. An attempt was made to correct the defects that had become apparent in the German system. A panel system was created that gave a larger choice of physicians. The manner of payment differed, in that the doctor obtained a set fee for all patients on his list, whether they were ill or not. The total number of patients on a doctor's list determined the amount he should receive. This was to give a doctor an income in proportion to his popularity and adjust the difference between severe and mild cases. The patient made the choice, and could change at the end of any quarter. The fee was set at eleven shillings per patient on the doctor's list. This has been cut several times. In this system the whole family of the insured obtained medical care.

There are many details of the system both favorable and unfavorable, but I wish to call particular attention to the defects. Here again the compensation of the sick patient proved too great a temptation to remain ill. The doctor who permitted the greater number of patients to remain on the compensation lists was very popular and of course had the greatest practice. His work was not so much the practice of medicine as writing useless reports. The lay control in the government bureau determines what drugs and surgical supplies shall be used. The doctor has to choose from a list of drugs that are inferior to the pharmacopœia.

This system puts a premium on dishonesty. The present condition is a lamentable one according to many physicians and government officials. Lay proponents of the system mention the number of persons who have been on the lists for years and have not been ill. An important thing which is not mentioned is that the number of days of illness per year per patient is between 12 and 16 under the panel system. The figure in Germany is 16 and a fraction as compared to 6 and a fraction in the United States. The insurance plan was given over to private insurance companies. They failed. In order to carry on they obtained subsidies from the Government Exchequer. The taxes amount to government seizure of private property and to socialism.

THE FRENCH MODIFICATION

The French Cabinet adopted a plan of medical care similar to the panel system. The usual difficulties arose over the patient's choice of physicians and hospitals. The same restrictions in the choice of drugs and supplies applied. The lay control of the practice of medicine and dentistry was again asserting its rights. They attempted to reduce the pay of doctors, dentists, and nurses. The dentists organized and led in a strike against the system. They were quickly followed by the medical profession. As a result they have removed the practice of medicine and dentistry from lay control, and have established several commendable principles that preserve the relationship between physician and patient. The physician sets his own fee and prescribes what medicine he deems advisable. The effort to keep expense down is dependent upon the education of the doctor. Of all, the French system is the best of any in Europe. Belgium, Holland, and Switzerland have socialized medicine.

Russia has of course a completely socialized medical service. In this case it has one thing in its

favor. Everything in Russia is socialized and the position of the doctor is a little higher relatively than in the other countries mentioned. It is of interest to note, however, that the rest of society is reversed. Labor ranks highest. The doctor and engineer occupy about the same position. The doctor and engineer retain the respect of all because the Five Year Plan cannot be carried out without them.

IN ITS SOCIALIZING RUSSIA DOES NOT DISCRIMINATE

Medical care in Russia is divided into home care, outpatient, and hospitalization. Home care consists principally of emergency calls. The patient is instructed to go to a clinic if possible. If unable, he is hospitalized. Hospital facilities have been increased from 30 to 100 per cent in the last few years. The hospital facilities of Russia are still below those of the United States. As a rule, the hospitals were found to be scrupulously clean. The food was found to be clean, wholesome, and plentiful. There was a noticeable lack of attendants, sixty to seventy for 300 patients. The equipment was good. There is considerable physiotherapy used. Outpatient care is arranged in the polyclinic style. Each department is in charge of a specialist. Much attention is given to preventive medicine, prenatal and infant care. Contagion and venereal disease is a special branch of medical care and public education. There is one doctor for each two thousand persons in Russia. The doctor is paid 200 roubles a month. He works eight hours a day in a clinic where he may see sixty patients a day. Heads of large hospitals may receive 400 roubles a month (a rouble sells for 50c). Some doctors have larger incomes than Stalin. There are fifteen medical schools in Russia. The medical students are chosen by competitive examination, and are paid salaries. Specialization is urged. The patient is only a small cog in the machine of medical service. Individualism is submerged in the social fabric of the whole. Abortions have been legalized permitting social, economic or other reason, if done within three months. Unauthorized abortions are punished by one year in prison. Thus we see a sketchy picture of completely submerged personalities by a huge social system. The Russian medical service has many things in its favor. It is a product of scientific planning by men who apparently are sincere. The question always before us relative to such a social plan is, what will be the effect of the human equation?

TRENDS OF MEDICAL PRACTICE IN AMERICA

To come to this side of the Atlantic, we have in Cuba a system of medicine completely controlled by laymen. It is conducted under the auspices of fraternal and athletic associations similar to some organizations in North America. The society sells memberships to individuals and industries. This membership offers privileges in club rooms, gymnasiums, swimming pools, and tennis courts. Incidentally it offers complete medical, surgical, and hospital care to its policy holders. The executive board of the society hires medical men and more or less completely regulates the type of care dispensed. The specialist receives $125.00 a month, the general practitioner, about $100. Medical men are on call twenty-four hours a day in addition to regular hours in the clinic. It does not require much imagination to visualize the type of service rendered. There has been no research in Cuba since this system came into control. It amounts to 95 per cent of all the practice in Cuba.

This brings us to our own country again with the great agitation of minority groups for our own reorganization of medical service. I do not like to feel that all the agitation can be blamed to certain members of these groups, who have much ambition and little regard for the public weal. I feel that we are confronted with two great principles of social order. I call one Americanism, the other Socialism. I understand by Americanism, the recognition of equal political opportunity, and a recognition of physical and mental inequality that is biologically inevitable. I believe the words of a former President of the United States, that "we, the people of the United States, must support our government, but we, the people of the United States, are not supported by our government."

THE TUSCOLA PLAN

Almost a year ago Dr. C. N. Race, my associate, and I began the study of the cost of medical care for indigents in Tuscola County. We examined with great care all bills that had been paid by the county for three years past. We determined the financial status of a great many patients that had been cared for by the taxpayers' money in and outside the county. We were astounded by the number of patients, who in the county were considered far above the indigent class, receiving medical and surgical care, free, outside the county. We were also shocked by the amounts of these bills, for we realized that work was being done for county patients at costs that were well above what we were receiving from our pay patients.

The resultant action of the Board of Supervisors of Tuscola County has been the outgrowth of our research on costs and the collaboration of Dr. I. D. McCoy. The willingness of the Supervisors to cooperate with the medical profession has been of great assistance. They are anxious to save money for the taxpayer. They want the best possible medical care with the least burden to the country. We of the profession want to preserve medicine for the people we serve. I think the ten principles of the A. M. A. embody what we all want.

1. The welfare of the patient is of primary importance.
2. The unity of the medical organization must be preserved.
3. Free choice of physician must be guaranteed.
4. Opposition to unfair competition among physicians must be maintained.
5. Sacrifice of quality of service through action of commercial competition shall not be tolerated.
6. Direct or indirect solicitation of patients through paid agents by whatever name or otherwise cannot be permitted.
7. Full responsibility for the determination of all questions of professional qualifications and ethics should be vested in the medical organization.
8. Compensation to physicians should be adequate for competent service.
9. Preventive and preclinical medicine must not be neglected.
10. Any change in the method of administering medical care should be preceded by careful and thorough study by organized medicine.

TUSCOLA COUNTY PLAN

This agreement made this ..... day of November, 1932, between the Tuscola County Medical Society, party of the first part, and the Tuscola County Poor Commission, party of the second part.

Witnesseth: The party of the first part will render to poor and needy residents within the boundaries of Tuscola County, all medical and surgical work, including medicine and dressings outside of the Hospital, with exception of cases of tuberculosis, insanity or deep therapy (X-ray and Radium). Consultations to send patients to Ann Arbor or State Hospitals or Hospitals outside of Tuscola County, will consist of three doctors and the Supervisors of the Township in which the patient resides, or a member of the Tuscola County Poor Commission. All indigent patients will only be hospitalized on consent of the local Supervisor or Superintendent of the Tuscola County Poor Commission. All charges for professional services rendered by Doctors while patients are in the State Hospital at Ann Arbor will be paid by the party of the first part.

In consideration for any work performed by the party of the first part for indigent medical care during the period

from November 1, 1932, to November 1, 1933, the party of the second part hereby agrees to pay to the party of the first part the sum of Seventy-five Hundred Dollars ($7,500), to be payable in twelve monthly installments and divided among the members of the Tuscola County Medical Society, exclusive of the members of the Staff of Michigan Farm Colony for Epileptics.

Hereafter and while this agreement is in effect no member of the party of the first part shall receive any other compensation from the party of the second part for services rendered by said first party to any indigent resident of Tuscola County for medical services, nor shall the County of Tuscola be liable in any manner for any such services. It is also understood by the parties hereto that the term "indigent patients" above referred to includes any patients resident at Tuscola County Infirmary.

It is the inherent right of a doctor to exercise discretion as to whom he shall give medical treatment.

Signed .....

It is a matter of mutual agreement between the Board of Supervisors and the Medical Society that there will arise from time to time situations that could not be foreseen. It is the desire of both these groups to coöperate in every way possible. It is mutually understood that the fundamental principles behind this movement is to place more responsibility upon the individual and relieve the burden of the taxpayer, before taxes become governmental confiscation of property. Technically there are no indigent persons. Each patient is under the same obligation to pay for the care he receives as any other patient. The doctor is under the same obligation to each of his class of patients. It is recognized that there is an inevitable discrepancy between the value of work done and the pay received. The above arrangement is an attempt to compensate.

The Society recognizes the need for a firmly united group, and, to promote the welfare of the whole, is dividing the money equally among its members. As a means to insure better attendance at the medical meetings it has been provided that a fine of $5.00 be withheld from each member's county check if absent without satisfactory excuse. This feature is helping to build a strong, friendly, and firmly united medical society. We are stimulating an interest in Medicine that cannot help but benefit our patients as well as ourselves.

IRON AND COPPER IN TREATMENT OF ANEMIA IN CHILDREN

As there is still some controversy in the literature as to the effects of iron in the treatment of anemia in children, it occurred to Milton Smith Lewis, Nashville, Tenn., that it was of considerable importance to determine whether the effect of iron could be enhanced by the addition of copper, and it was felt that a study of the therapeutic action of these two elements may help to demonstrate their value or lack of value as possible therapeutic agents in the treatment of anemia in children. It was found that iron and copper given in combination to thirty-four children with nutritional and secondary anemia was more effective than iron given alone. This was particularly noticeable in the nutritional series. —*Journal A. M. A.*

MEMBERSHIP SOLIDARITY

"Much depends on how the medical profession acts to meet the present crisis. Only by united action can we hope to weather the storm and preserve our proven principles." Membership affiliation of every eligible doctor should be striven for by every county society. United membership support should be subscribed to all of our policies. There must be no evasion or independent action. Your individual future depends upon your adherence to all the actions and activities of your county society. This is vital to your own personal welfare.

COMMUNICATIONS

A GOOD RESOLUTION

WHEREAS, the recent report of the Committee on the Costs of Medical Care has provoked much thought and discussion on the part of the profession and the lay public; and

WHEREAS, a striking difference in principle is evident between the Majority Report and the Minority Report; and

WHEREAS, grave fears are being entertained regarding the dangers that might result to the public in the application of the plans recommended in the Majority Report; therefore, be it

RESOLVED, that the Wayne County Medical Society go on record as approving the principles laid down in the Minority Report, and that the signers of said report be notified of this action; and be it further

RESOLVED, that the Minority Report be placed in the possession of local lay and press organizations with the recommendations of the Wayne County Medical Society.

THIEF WARNING

Dec. 1, 1932.

Michigan State Medical Association.
Gentlemen:

Physicians' microscopes in Detroit and surrounding towns are being stolen systematically.

The thief enters offices during the noon hour when attendants are absent.

He uses master keys for Corbin, Yale and probably other locks.

He is familiar with mechanical stages, sub-stages, microscope carrying cases, etc., disconnecting them for removal.

Gold is being stolen from dentists' offices by apparently the same man.

A suspect is 5 feet 9 inches in height, weighs 140 pounds, has black sleek hair, dark brown eyes, dark complexion giving impression of German type, but speaks perfect English. He claims to be a veteran (gives his age as forty-two) and asks for a shot of morphine, at times carrying a crutch and cane to support a claim of leg abscess.

I suggest the profession be warned through the medium of the State Medical Journal.

Very truly,

H. B. BRITTON.

GOITER PRIZE

Michigan State Medical Journal,
Grand Rapids, Mich.
Dear Sirs:

The American Association for the Study of Goiter, for the fourth time, offers Three Hundred Dollars ($300.00) as a first award, and two honorable mentions for the best three essays, based upon original research work on any phase of goiter presented at their annual meeting in Memphis, Tenn., May 15, 16 and 17, 1933. It is hoped this will stimuate valuable research work, especially in regard to the basic cause of goiter.

Competing manuscripts must be in English and submitted to the Corresponding Secretary, J. R. Yung, M.D., 670 Cherry St., Terre Haute, Indiana, U. S. A., not later than April 1, 1933. Manuscripts arriving after this date will be held for the next year or returned at the author's request.

The First Award of the Hamilton, Ontario, Canada, 1932 meeting was given Donald McEachern,

M.D., Johns Hopkins Hospital, Baltimore, Md., "A Consideration of the Mechanism of Hyperthyroidism based upon its Effect upon Cardiac and Skeletal Muscle."

Honorable mentions were awarded A. B. Gutman, M.D., Presbyterian Hospital, New York City, "The Effect of Administration of Iodine on the Total Iodine, Inorganic Iodine and Thyroxine Content of the Pathological Thyroid Gland," and Lieut. Col. H. Stott, M.R.C.P., I.M.S., Dean Faculty of Medicine, Lucknow University, Lucknow, India, "The Distribution and Cause of Endemic Goiter in the United Provinces."

The Association will greatly appreciate your giving the contents of this letter full publicity, especially among those interested in research work.

Fraternally,

J. R. Yung, M.D.,
Corresponding Secretary.

GENERAL NEWS AND ANNOUNCEMENTS

Read the County Society news. You will learn interesting county activity.

Dr. H. J. Pyle, Grand Rapids, was elected chief of staff of Blodgett Hospital.

Your annual dues are now payable. Assist your local secretary by mailing him your check today.

Dr. T. D. Gordon returned Christmas week to his practice in Grand Rapids, following a six weeks' vacation in California.

Dr. Henry Perry, Dr. Duncan Cameron and Dr. J. G. Rulison were elected to serve in the House of Representatives of the present legislature.

Dr. Ferris N. Smith, Grand Rapids, held an operative clinic and read a paper on sinus infections before the Philadelphia Society on December 7.

Dr. C. A. Neafie of Pontiac, Councillor for the Fifteenth District, Michigan State Medical Society, has been elected President of the Oakland County Medical Society.

Dr. Morris Fishbein, editor of the *Journal of the American Medical Association,* addressed the Calhoun Medical Society on December 6 on the subject of "The Present Trend of Private Practice."

A musical tea was held Sunday afternoon, December 11, 1932, from three to five o'clock, at the Wayne County Medical Society Club rooms when the Woman's Auxiliary of the Society presented the membership with a Steinway piano.

A fourth branch of the Wayne County Medical Society has been organized, namely the Dearborn Medical Society. The other three are the East Side, West Side and Highland Park. These are all branch societies of the Wayne County Medical Society.

Following the completion of the work of the Committee on the Cost of Medical Care a large Advisory Public Relations Committee has been organized consisting of physicians throughout the United States. The midwest is represented by the following from Michigan: James D. Bruce, M.D., Ann Arbor; J. H. Dempster, M.D., Detroit; Carl F. Moll, M.D., Flint; H. W. Plaggemeyer, M.D., Detroit; J. M. Robb, M.D., Detroit; William J. Stapleton, M.D., Detroit, and John Sundwall, M.D., Ann Arbor. The members of this committee are not committed to the approval of the committee's recommendations. The object of the Advisory Public Relations Committee is to secure the thoughtful consideration of the large amount of data collected by the research workers during the past five years.

Dr. Emil Amberg, who is the editor of the *Rainbow,* a publication of the Detroit League for the Hard of Hearing, advocates the extension of the teaching to the smaller and therefore less favored localities distant from Detroit.

"We think, he says, that a great deal can be accomplished by organizations which penetrate into the remotest hamlets. This can be done by considering every league in a large city a central station from which the wholesome influence should radiate through substations. Substations could be established in smaller communities. These could be visited, at stated intervals, by a lip-reading teacher who travels from substation to substation, and who could also coöperate with the members in the sense of the larger leagues. May the time come when no deafened person must go without the help of a lip-reading teacher and without the advice and assistance of a League of the Hard of Hearing."

The outstanding event of the year for the Wayne County Medical Society will be the annual Beaumont Lectures to be held at the Wayne County Medical Society auditorium, Maccabees Building, corner Woodward Avenue and Putnam, Detroit, on January 30 and 31, 1933. The Society has procured as lecturer, Professor Walter B. Cannon, Professor of Physiology of Harvard University. Professor Cannon will deliver three lectures, the first on Monday evening, the second Tuesday morning from eleven o'clock to twelve o'clock, and the third Tuesday evening. The event marks the 100th Anniversary of the publishing of Beaumont's epoch-making work on physiology of digestion. Special reference will be made to this event and a Beaumont exhibit will be shown at the Society's club rooms, corner Canfield and Woodward. Every member of the Michigan State Medical Society is invited to attend. To those who have attended any of the series so far of the Beaumont lectures a second invitation will not be necessary since they know the excellent quality of the series without any exception.

On December 5, 1932, a very interesting meeting and dinner was held at the Brown City Hotel, Brown City, Michigan, when the Huron and Sanilac County Medical Societies together with Lapeer, Tuscola, St. Clair met in joint meeting. The dinner

among other things consisted of venison and turkey. After dinner Dr. T. F. Heavenrich of Port Huron, Councillor of the District, spoke and turned the meeting over to Dr. J. E. Campbell of Brown City, who presided. Dr. Angus McLean of Detroit was introduced and gave an excellent talk on the cost of medicine and medical education. Dr. Carl F. Moll of Flint led in the discussion, followed by Dr. Paul R. Urmston of Bay City. Dr. Louis J. Hirschman of Detroit presented a paper which was discussed by Dr. McLean on the subject of "Significance of Ano-Rectal Pain." Dr. H. E. Randall of Flint also spoke. Dr. J. M. Robb, President of the Michigan State Medical Society, spoke upon organization opportunities in medicine. He also dwelt on the report of the Committee on the Cost of Medical Care which had recently appeared. The Committee on Preventive Medicine was discussed in regard to the functions of county societies. He advised all physicians to become more interested and to inform themselves on preventive measures. Dr. McLean closed the discussion. There were in all one hundred and five doctors present from the following counties: Bay, Saginaw, Genesee, Tuscola, Huron, St. Clair, Lapeer, Sanilac and Wayne.

THE WAY OUT

We are doon intil th' trenches o' depression's aw'fu' war,
An' oor hope an' aspiration, isna even close tae par,
An' oor freen's seem tae forget us, an' some ithers pass us by,
An' oor e'en hae nae been lookin', through th' pin holes in th' sky.

We are pullin' an' atuggin' wi' mud upon oor shoon,
An' oor loaded cart o' overheid, wull swamp us verra soon,
Oor clodhoppers wull be stickin' in th' mire bye an' bye,
If we dinna start apeekin', through th' pin holes in th' sky.

Oor politics an' business an' oor auld religion too
Are floonderin' 'roon upon th' rocks, oor anchor's draggin' noo,
An' a shipwreck's nigh upon us, we've nae dock at which tae tie,
But oor harbor's seen, by lookin', through th' pin holes in th' sky.

We've nae been lookin' upward, but doonward tae oor feet,
An' people canna live like that, they're sure tae meet defeat
If they're lackin' o' a vision an' a faith that's standin' by,
An' forgettin' tae be lookin' through th' pinholes in th' sky.

There are bonnie roses bloomin' in th' gairdens 'roon th' toon,
There's a sunshine silver linin' tae th' cloods whas hinging' 'roon,
An' oor rescue is wi'in us, an' oor hope an' vision lie
In oor lookin' up ayont us, through th' pin holes in th' sky.

Ah weel, Guid nicht.

—Weelum.

SOCIETY ACTIVITY

THE COUNTY SOCIETY

In the democratic plan of medical organization, the County Medical Society is the basic unit. It is the only door through which admission may be secured to the State and American Medical Association. It is the sole judge of the applicant's membership qualifications. It is the local representative of the State and National organizations. It is the most important unit and therefore has certain very definite and grave responsibilities. When the County Society fails, the State and National groups fail. The State society is strong, active, and achieving only when its component County units seriously assume and discharge their responsibilities. The parent organizations are very dependent upon their basic units. Too often is this fundamental fact overlooked or ignored by the members and officers of County societies.

For some time, several years, there has been reflected an attitude that is the reverse of this organizational plan. County units have expected and still do expect their State Society to accept and discharge local obligations, initiate and assume local activity, solve and correct local problems and be a protectorate for local members. Likewise, State organizations have been looking to and asking that the American Medical Association assume and discharge state and county obligations. We have wandered far into the realm of paternalism and expect paternalistic aid in our professional work, and livelihood. This expectancy should be changed to an attitude of contributing support and renewed local effort. The sooner this is realized and effected the speedier will all of our pressing problems be satisfactorily solved and the encroachments and attempts of lay and governmental control of medical practice be defeated.

The problems and practices of every county are local. Their solution is local. There is no national or state panacea that is applicable for every county, district or state. Local conditions, industries, population, climate, are so varied that what may apply to one county, city, or state would not and could not be applied to another city, county, or state. This fact should ever be remem-

bered when the question is raised as to why the State Society or the American Medical Association does not do something. *Solution and activity is a local responsibility.*

Your State Society and the American Medical Association are not inactive nor do they shun responsibilities. In affairs and in problems that involve the state *as a whole,* your State Society is alert and is aggressively active in conserving and enhancing the collective interests of the profession and the individual state interests of the doctor. This is evidenced in the efforts of your Council, officers and state Committees and the results of their efforts are imparted in their reports which are frequently published in the JOURNAL. Your State Society also collects information and data, the experience and results of other units, and makes them, together with suggestions and advice, available to County units to aid in solving local problems. The state formulates general principles and policies and aids in moulding them to apply to your specific needs. Remember your State Society is energetically active in your behalf but it cannot come into your office or field of practice and assume to discharge your personal responsibilities or those of your County Society. The State Society can and does help but the local effort *must be made by the local individual or unit*—the County Society. Ever be mindful of that fundamental principle. Our future will become brighter just as soon as that fact is realized and we cease to assume the attitude of expectancy and aid from the parent body whose functions and responsibilities are *state or national* and *not* local.

What specific responsibilities devolve upon a County or District Society? In this observation they can only be re-enumerated—space will not permit, at this time, detailed specifications, but, should they be desired, inquiry will secure outlined details:

1. Enrollment of every eligible member and maintaining his active interest in your County Society.

2. Formulation of local principles and policies, maintaining their observation by every member.

3. Establishing and maintaining relationship and contact with local authorities and establishing agreements and rules to be observed and applied in all matters pertaining to local health and public welfare.

4. By contacting local authorities, arrive at an agreement as to conditions that will govern the rendering of medical care to the wards of your city or county.

5. Public education in regard to health, preventive medicine and those measures that will conserve individual health.

6. Participating and advisory interest in all community projects and activities and assuming leadership in everything related to health and medical care.

7. Conducting County meetings and clinics that will aid your members to remain abreast of scientific progress and reflecting the best and highest type of medical care in their daily practice.

8. Assert collective influence in the administrative affairs of local hospitals and clinics.

9. Foster loyalty to your County, State and American Medical Association and their objectives. Dissuade allegiance to the many existing extraneous medical and pseudo-medical organizations, most all of which exist for ulterior and mercenary benefits to a small, select group of so-called leaders. Be not misled by pseudo-leaders or publishers and editors of questionable medical publications. Do not expend and squander effort and energy along the by-paths or diverging streams.

10. Foster fraternalism and the spirit of helpfulness. The principles of medical ethics have been and still are the golden rules of practice and association. Observe them.

When every County Society manifests acceptance and application of these society obligations, medicine and the profession will emerge from the present crisis with honor maintained, confidence restored and the respect of all mankind. Solution of every problem will be satisfactorily effected.

A national, state and local challenge is before you. Accept it and through united effort and loyalty demonstrate anew that we who today constitute the medical profession continue to be worthy of the trust and confidence of the body politic.

Your State Society will aid in every possible way. The final answer, however, rests with the officers and members of every County Society. Will you accept the challenge? Will you revive intensive action in your County? Will you discharge the re-

sponsibilities that belong to your County Society?

ABSTRACT OF DR. MORRIS FISHBEIN'S LECTURE AT BATTLE CREEK, DECEMBER 6, 1932

The annual meeting of the Calhoun County Medical Society held December 6, 1932, at the Athelstan Club, was the climax of an unusual series of medical programs held by this Society throughout the year. Dr. Morris Fishbein, Editor of the American Medical Association Journal, delivered one of his ever inimitable, forceful and scintillating orations on the "Present Trends in Medical Practice." He based his talk largely on the recent report of the self appointed committee for a five-year study of the costs of medical care. He said that the findings of the majority of this committee headed by Harry H. Moore, Ph.D., did not come as any surprise to the Medical fraternity, who have watched the trend of the studies in the bulletins sent out from time to time, and viewed with amusement and regret the fact that over a million dollars of some one's money has been spent only to report the personal bias of its director as expressed in his book, "American Medicine and People's Health," which committed itself to insurance schemes as well as state medicine.

Dr. Fishbein gave many interesting side lights on the personnel of this committee, who, when all is said, do not represent an activity of any federal or state fact finding commission, but has come about through the pet scheme of one E. A. Filene, who was chiefly responsible in providing the money with which to promote the work.

It would seem, if economy in medical care was the real object of the study, that more stress should be placed on the family physician as the center of the picture, since 85 per cent of all sickness can be diagnosed and treated by the family doctor with only the help of such material as can be carried in his hand bag.

The million dollar expense of this committee has not dislodged the family doctor from his important position as the intimate private healer of most of the affections of mankind, and no one believes that he, the family doctor, contributes very much to the high cost of medical care. What has really brought this subject into the limelight is the 15 per cent of illnesses which usually require the help of some form of specialization.

Forty years ago, aside from the doctors in practice there were in addition a few trained nurses contributing to the expense of sickness. Hospitals had not become popular. Today there are, besides the doctors and specialists, X-ray personnel, physical therapists, hospital overhead, etc.—a vast army, all of whom must live, and their services are required by the fact that the science of medicine has expanded and is more exacting.

The majority report of this committee would place medical costs on a group payment basis through insurance or taxation, or both, without abolishing private practice on an individual basis for those who prefer it.

The minority report recommends that the care of the indigent by government agencies be expanded with the object of relieving the medical profession of this burden. Even this goes a long way toward state medicine but there seems to be no other way out. But physicians who are paid by the state for the care of the indigent will be able to lessen their fees for those able to pay regular fees.

Physicians are urged to familiarize themselves with the report of this committee. They will find on the side of the majority signing this report, forces representing the great foundations, public health officialdom, social theory, if not socialism and communism: on the other side is the organized medical profession willing to await an orderly evolution guided by controlled experimentation, and not be misled by utopian fantasies which would cause them to lose their identity by placing them under political administration.

The public will find, to its cost, that such schemes do not answer the desire in each human breast for human kindliness, forbearance and understanding.

H. B. K.

COST OF MEDICAL CARE REPORT

After one has carefully read the report of the Committee on the Cost of Medical Care, the reaction recorded is one of disappointment. After five years of alleged study and the expenditure of over a million dollars, the Committee fails to advance tenable, practical or applicable plans or methods

that will bring about the solution of the problems involved in the providing of medical care to those in the lower earning brackets or the indigent.

Recommendations made, in many instances have been proven inefficient and unavailing. Certain recommendations involve the expenditure of millions of dollars to be raised by taxes. Other suggestions have been proven valueless in other countries and in certain parts of this country. Many of the cited studies are not typical or of sufficient broadness to warrant any sound conclusions or to serve as a basis for adoption.

Over two years ago it was predicted that the final report of this committee would fail to present recommendations of merit or plans that would accomplish solution of problems that are involved. This prediction was premised on the fact that the Committee was composed of individuals who held preconceived ideas, were biased, represented groups with avowed policies or who lacked the necessary knowledge of medicine, bedside practice and experience. The prediction is further supported by the points raised in the minority report. The minority report should receive the most careful consideration of all who are concerned in the rendering of medical care and making it available.

The public must now turn to the medical colleges and the profession for guidance, solution and leadership in solving the country's problem of providing adequate medical care for all peoples. This is as it should be, for it is a distinct obligation of the profession to make medical services available under conditions satisfactory to patient and physician. The profession will assume this obligation and responsibility. Steps toward that end have been taken and will now be rapidly developed from organizational studies that have been under way for over two years.

The safety of the public in matters of life and health rests upon the initiative of the medical profession. The history of the profession records that it has never been unmindful of the welfare of the public.

It should further be remembered that there exists a primal fundamental: Medical care, medical practice is secondary to, and dependent upon, the progress of the medical profession. Let the profession fail and medical practice fails, also. Medical practice does not stand alone and for that reason cannot endure unmolested without the protection of the medical profession. This fundamental has been overlooked and for that reason the five years of study and final report, together with other impinging facts and factors, causes great disappointment.

Confident expectation may be placed in the profession presenting acceptable solution if the public and local officials will heed its advice. Final applicable solution can only emanate from this source.

COUNTY SOCIETY OFFICERS

A new year witnesses the induction into office of many new County Society officers. Congratulations are extended to these new county officers upon their opportunity to serve their fellow members and community in return for the honor accompanying the office. Service and work should be the slogan of every officeholder and stress is laid upon work. Without work and expenditure of personal effort, yours will be an idle, non-accomplishing fiscal year.

Elsewhere in this issue the obligations and responsibilities of the county society are set forth. It is sincerely desired that new and old officers will seriously consider and adopt the recommendations therein made. Initiate the program for your county society and labor hard and continuously to establish it. Doing so will assure you a most successful year.

Your state officers stand ready to help. Command the state secretary's office for any and every assistance it can accord you. Your inquiries will be welcome and all its facilities will be at your disposal. The basic desire is that every County Society will, during 1933, obtain the greatest possible benefits obtainable for its members, individually and collectively. Success or failure rests with County officers. Yours is the blame if the year records idleness and failure to achieve. Embrace the opportunity that confronts you—there is a heap of satisfaction, happiness and reward for attaining definite objectives. May yours be high.

1933 DUES

By council action a rebate of $1.25 is authorized on 1933 annual dues. The amount of dues for 1933 will therefore be $8.75 per member.

Because of financial burdens assumed and

monthly obligations to be met in connection therewith, prompt payment of dues is urged.

COUNCIL MEETING

The Council of the Michigan State Medical Society will convene in regular mid-winter session in the Statler Hotel, Detroit, at 9:30 a. m. (E.S.T.), on Thursday, January 12, 1933. Such business as may properly come before this body will be transacted.

B. R. CORBUS, *Chairman.*

Official
F. C. WARNSHIUS, *Secretary*

JEOPARDIZING ALL INTERESTS

Recently, information was received imparting that a certain named member bid and agreed to make physical examination of employees of a certain employer for seventy-five cents (75c) for each examination.

Such a proposal involves infraction of "Ethics," is contract practice, and violates regulations governing medical licensure. It jeopardizes the best interests of employees, employer, the doctor and the entire profession. It can not be condoned or justified.

These are trying days. The financial stress and reduced income create temptations. To yield, to ignore ethics and principles, cannot help but create still more serious situations for the individual and the entire profession. It is unfair competition; lowers morale, and destroys confidence. All interests are jeopardized.

Our collective and individual future welfare, the future of medicine and confidence can only be assured by unswerving loyalty to the principles of ethics. Good medical practice rests upon the progress and well being of the profession. Undermine it and you undermine medical practice and service. To cut fees, to bid for volume, to discredit fellow practitioners is debasing and must not be initiated.

Hold fast to all of our medical principles which the years and centuries have demonstrated as being for the best interests of public and profession alike. Yield not to the proffers that may appeal for the moment. Support the union of our individual interests. Better times are at hand but they will not come if you jeopardize our future by untoward individual acts.

MALPRACTICE SUITS

One would hardly think that a woman would bring a suit against a doctor because she felt that she should have been delivered by cesarean section because her labor was protracted—yet such a suit was recently filed.

In the use of a therapeutic lamp one would think that a sun-burn would be the worst that could happen—but recently a celluloid comb caught fire and severe burns and loss of hair occurred. Caution: Be personally sure all combs and pins are removed.

When engaged for obstetrical care and you are away it is your business to provide for attendance.

Be guarded to whom you make reports of physical condition. Recently a doctor made a report to a factory nurse. The man lost his job. He sued the doctor and obtained a judgment for libel.

If you make an examination for an insurance company be sure the patient so understands. Never answer on an insurance blank the questions relative to past illnesses or present conditions that are not related to the immediate claim. You become liable if you do, without the patient's written consent. Never report to an insurance company any operative findings of a former patient applying for insurance.

No instructions given to a minor will protect you in a suit.

Hospital counts of sponges is no defense. The surgeon must know that all sponges are accounted for.

These are but a few of the liabilities that confront a doctor. They reveal the need for extreme care in these days when suits are started to secure easy money.

Do not lapse in your membership. You know not when you will be called to defend yourself.

FINAL REPORT OF THE COMMISSION ON MEDICAL EDUCATION

This commission was organized in 1925. Its report is now available in a 560 page bound volume obtainable from Willard C. Rappleye, Director of the Study, 630 W. 168th St., New York. It is well worth securing for it sets forth in reliable manner findings and facts that have pertinent relationship to economic conditions. It is so

far ahead, in its data and recommendations, that the report of the Committee on the cost of medical care fades way into the background and becomes useless. We started out to quote extracts but they became so numerous we had to desist. They consisted of guiding fundamentals that must be observed in every endeavor that seeks to bring about an adjustment in providing adequate medical care for the public.

The recommendation is made that all who are related or engaged in programs of readjustment should secure this report and study it carefully. It will be a most helpful and guiding authority.

A splendid service has been rendered by this Commission. Their efforts will go far in aiding medical colleges and the profession to satisfactorily reply to the challenge given them since other sources have failed. "The medical profession is the trustee of the essential knowledge and has the personnel to solve a large national problem. Possessing that knowledge it will make a valuable, vital contribution to public welfare."

"Medicine will occupy its proper place in society to the extent that it provides leadership and properly trained personnel for the program of medical service which should be built upon thoughtfully conceived plans of medical and postgraduate education, proper organization of the profession and the advocacy of unselfish and courageous public and professional policies."

MEMBERSHIP AND FELLOWSHIP

There continues to be considerable, yet unnecessary confusion in the minds of many of our members in regard to Membership and Fellowship in the American Medical Association.

Membership: By virtue of your membership in your County and State Medical Society, you are automatically a member of the American Medical Association. You pay no national dues. You benefit indirectly from national activities. You are not eligible to attend national meetings, participate in sectional meetings or have an office or voice in the national organization. In reality you are an associate.

Fellowship: To become a fellow you must fill out a fellowship application, have it endorsed by the state secretary and send it, with the annual dues of seven dollars, to the national secretary. Then and not till then do you become a fellow. The benefits of fellowship are: Receiving, weekly, the *Journal of the American Medical Association,* participation in national meetings and section deliberations, and eligible to hold office or become a delegate from your state.

A goodly number of members believe they are fellows because they subscribe to and receive the A. M. A. *Journal,* for which they pay an annual subscription of seven dollars. They are in error. They are merely subscribers. They have never filled out a fellowship application and hence are not a fellow. Latest reports show 946 Michigan subscribers who are not fellows. They could be and should be fellows, without additional expense, if they would secure and fill out a fellowship application and they would continue to receive the A. M. A. *Journal* to which they are now merely subscribers.

These members are urged to secure application blanks from their county secretary. Become a fellow and enjoy all its benefits.

MINUTES OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

The Executive Committee of the Council of the Michigan State Medical Society convened in Grand Rapids on December 7, 1932, at 6:00 P. M.

Present:
B. R. Corbus, Chairman
Henry Carstens
C. E. Boys
Henry Cook
Harlen MacMullen
President Robb
Secretary Warnshuis

1. After due consideration the Council designated Thursday, January 12, 1933, at 9:30 A. M. as the time for holding the mid-winter session of the Council in Detroit, Michigan.

2. Considerable discussion was devoted to the petition requesting a special meeting of the House of Delegates. On motion of Cook-Boys, the President and Chairman of the Council were instructed to ascertain when the Committee on Survey of Medical Agencies would complete its report, and upon receiving that information they were authorized to determine the time and place for the holding of the special meeting of the House of Delegates.

3. The Secretary was directed to arrange

for a meeting of the Joint Committee on Public Health Education and the Council at the time of the Mid-Winter Session of the Council in Detroit on January 12, 1933.

4. The Secretary was directed to call a meeting of the section officers on the evening previous to the Council meeting in Detroit for the purpose of arranging the details of the scientific program for 1933 Annual Meeting.

5. The Secretary was instructed to advise section officers that they nominate one guest speaker for their section and that such nomination be transmitted to the Executive Committee for approval. Sections may make application for additional guest speakers but their approval will be dependent upon the decision of the Council as to whether or not the incurring of increased expenses would be justified, and also whether or not such additional guest speakers could participate in the program of the general sessions of the scientific sections.

6. On motion of Boys-Cook, the Secretary was authorized to accept notes for 1933 dues from those members whom the officers of county societies recommended as meriting such credit consideration.

7. The Finance Committee composed of Dr. H. Carstens, Henry Cook, and Harlen MacMullen, held a meeting in the afternoon to consider the 1933 budget. The Chairman, Dr. Carstens, presented a tentative budget for 1933. After discussion the Secretary was directed to send a copy of this proposed budget to each member of the Council for his consideration and that final action and approval of the budget and such amendments as may be suggested be deferred until the Mid-Winter session of the Council.

8. Dr. Cook recommended that the Secretary arrange for a definite campaign on the part of county societies who, during a certain designated week, shall make a specific and active endeavor to secure the membership affiliation of all doctors in their county who are eligible to membership. The recommendation was approved.

9. Upon motion of Cook-Boys, the Publication Committee and the Secretary were requested to confer with the officers of the Michigan State Dental Society for the purpose of considering the desirability and advisability of combining the Michigan Dental Journal with the Journal of the Michigan State Medical Society, and to report the results of their conference to the Mid-Winter Session of the Council.

10. President Robb and the members of the Executive Committee discussed the report of the Committee on the Cost of Medical Care. Upon motion duly made, the Executive Committee endorsed the editorial appearing in the Wayne County Society Bulletin as expressive of the attitude and opinion of the Executive Committee, and recommended that this editorial and a synopsis of the report of the Committee on the Cost of Medical Care be published in the State Journal and that county medical societies be requested to take suitable action to record their endorsement of the Minority Report and the principles therein set forth.

11. President Robb announced the appointment of Dr. F. W. Garber, Sr., of Muskegon to fill the unexpired term of Dr. Ray Stone on the Joint Committee of Public Health Education.

12. President Robb announced the appointment of the following committee on Preventive Medicine:

L. O. Geib, Chairman, Detroit
C. T. Ekelund, Pontiac
Roy Holmes, Muskegon
Stuart Pritchard, Battle Creek
J. J. O'Meara, Jackson
C. R. Keyport, Grayling
L. F. Foster, Bay City
F. B. Miner, Flint

13. On motion of Carstens-Boys, $1,000 was appropriated for the expenses of the Committee on the Survey of Medical Service and Health Agencies.

14. The Secretary presented a communication from the Council of the Wayne County Medical Society relative to the construction of a Northern Michigan Tuberculosis Sanitarium as provided for at the last session of the Legislature. Upon motion of Carstens-Cook, the communication was directed to be sent to the Legislative Committee for investigation and recommendation as to what action should be taken by the Council.

The Executive Committee adjourned at 11:00 P. M.

F. C. Warnshuis, *Secretary.*

MONTHLY LETTER

Presidents and Secretaries,
County Medical Societies
Gentlemen:

You who are in contact with your local profession sense the unrest that exists in regard to present

practice and the future of medicine. There is much discussion and sometimes, with but little thought, plans for solution of all problems are advanced and advocated. This unrest is keenly sensed at your State and the American Medical Association offices by reason of the numerous reports of this or that plan, scheme or project advanced. Likewise, lay groups, companies and corporations are promoting clubs, sickness insurance and flat rate medical care propositions. Doctors are being solicited and offered appointments at low monthly salaries to do an unknown amount of professional work in these proposed groups.

At a Conference held in Chicago on November 17 and 18, called by the American Medical Association and attended by President Robb, President-Elect Le Fevre, Chairman Corbus and your Secretary and officers from every State Society, the existing situation was discussed in detail. One main conclusion that was reached was that no general solution or policy could be formulated that would be applicable to the entire country and to every county. It was accepted that the solution was the responsibility of *every County Society to work out its own local problem.* That guiding leadership should be assumed by every County Society.

It was further agreed that in formulating solutions and dealing with local situations and local problems the principles of our Code of Ethics should be a fundamental guide. An amplification of these principles was compiled and a copy is enclosed.

It was declared that contract and insurance practice was a violation of ethics.

The minutes of the Conference will be imparted in an early issue of the Bulletin of the American Medical Association. The Department of Economics of the Journal of the American Medical Association from week to week will impart pertinent facts and advice. The December 3 issue of the Journal of the American Medical Association will contain the Majority and Minority Report of the Committee on the Cost of Medical Care.

As officers of your County Society you are urged to devote *active* and dominating effort to institute and press the following leadership action:

1. Cause your Committee on Public Relations to survey your county conditions and make recommendations for action.
2. Impress upon your members the imperative need for unity of action and observance of the principles of ethics. There must occur no division or individualistic action. A united stand is basic to the preservation of professional independence and to keep the individual doctor from becoming an employee of a lay group that seeks to exploit him and the profession for financial gain. Warn against the temptation proffered in the offer of a salary or the offer of a staff or club appointment. The profession individually and collectively must not sell out to lay control. Our future is dependent upon this vital fundamental. Officers should deeply concern themselves with maintaining membership solidarity and loyalty.
3. It is recommended anew that at every County Society meeting you arrange for a discussion of these local problems and the observance of the principles enclosed in formulating local policies. Inspire your members with the basic thought and purpose that each one has a definite personal responsibility in maintaining inviolate the ethics and ideals of his profession.

You who are officers must become active local leaders and joining your efforts with officers of every county society in this state and nation dominate the profession's stand in defeating every movement that seeks to overcome our professional independence and change the existing sacred relationship of physician and patient. Be not misled by false leaders. Be not swayed by designing individuals. Do not yield to the pleadings of misinformed writers, promotors or editors of questionable publications.

The profession can meet and solve this emergency as it has many others in the centuries gone by and continue to maintain and hold public confidence and respect. The knell of the individual doctor, his independence and his right to earn worthy competence and individual pursuit of his practice and happiness will be prevented if your county society holds steadfast to organized medicine's policies and purposes.

Your State office will make available helpful information and guiding data. When in doubt write for information and suggestions. Your inquiries will be welcome and will receive prompt attention.

Remittance blanks for 1933 dues are being mailed to all Secretaries. Remember the 1933 dues are $8.75 per member.

Watch the State Journal for other important announcements and Council and Committee reports and call them to your member's attention.

Delay comment, criticism and action on the report of the Committee on Cost of Medical Care until the American Medical Association, Judicial Council and Trustees, your State Council and Committees have well considered its content. There will undoubtedly be considerable press publicity and comment inasmuch as a most competent publicity expert has been employed by the committee. Withhold all expressions till those who are capable to give sound advice digest the report.

Initiate efforts to secure 100 per cent membership affiliation in your county. Much depends on how the medical profession acts to meet the present crisis. Only by united action can it hope to weather the storm and preserve those proven principles which it knows to be best for the public and for its own members. This is the responsibility of your County Society.

Yours very truly,
F. C. Warnshuis, *Secretary.*

TWELVE POINTS IN THE PRINCIPLES AND POLICIES OF MEDICINE

Principles

1. Medicine is the trustee of society in the care of the sick and injured; its policies must always be governed by this fundamental fact.
2. The good of society must be the sole aim of its public policies and the good of the patient the first consideration in the relations between physicians and patients.
3. Medicine's first responsibility must be to see that its services are available to all men.
4. The public interest demands the most competent medical profession possible. Medicine must be an attractive profession to compete successfully with other professions for the ablest young men.
5. In the sense that every calling from which a living must be gained is a business, medicine is a business; it must accept the competitive conditions of practical life but, as a profession of high ideals, it must seek to prevent selfish commercialism.
6. Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically diagnosed and treated by a competent individual general practitioner.

Responsibilities

7. The services of medicine include (a) the prac-

tice of medicine; (b) the promotion of preventive medicine and the public health; (c) the fostering of research and the increase of knowledge.

8. Medicine's chief concern must be for the individual physician; the service rendered by individual physicians in the aggregate constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physician who gives it.

Rights

9. The medical profession asks for its practitioners: freedom of opportunity to develop to the limit of their individual capacities.

10. It asks a career of independence under conditions of free and dignified competition.

11. It asks remuneration sufficient for reasonable comfort for the individual and for his family.

12. In its ideals of independence, medicine has a right to control its own affairs. Its history of capacity and altruism justifies this claim.

WILL A SECRETARY GO TO HEAVEN?

If a secretary writes a letter, it's too long.
If he sends a postal, it's too short.
If he doesn't send a notice, he's lazy.
If he attends a committee meeting, he's butting in.
If he stays away, he's a shirker.
If he duns the members for dues, he is insulting.
If he fails to collect the dues, he's slipping.
If he asks for advice, he's incompetent.
If he does not, he's bull-headed.
If he writes his reports complete, they're too long.
If he condenses them, they are incomplete.
If he talks on a subject, he is trying to run things.
If he remains quiet, he has lost interest in the meeting.

Ashes to ashes,
Dust to dust,
If others won't do it,
The secretary must.

—*The Wards, Over WBAP.*

COUNTY SOCIETIES

CALHOUN COUNTY

At the annual meeting of the Calhoun County Medical Society held December 6, 1932, the following officers were elected:

President, Dr. Carl G. Wencke, Battle Creek; vice president, Dr. A. E. MacGregor, Battle Creek; secretary-treasurer, Dr. Harry B. Knapp, Battle Creek.

Delegates to State Society are Dr. C. S. Gorsline, Battle Creek, and Dr. A. T. Hafford, Albion. Alternates, Dr. W. L. Godfrey, Battle Creek, and Dr. A. D. Sharp, Albion.

Dr. Morris Fishbein gave the main address at the dinner meeting.

HARRY B. KNAPP, Secretary-elect.

GENESEE COUNTY

At the recent Genesee County Medical meeting, the following officers were elected for the years 1932-1933:

President, Dr. J. C. MacGregor; president-elect, Dr. R. S. Morrish; secretary, Dr. C. W. Colwell; treasurer, Dr. Vaughn Morrissey; medical legal officer, Dr. H. E. Randall, all of Flint, Michigan.

Delegates to the State meeting are: Dr. F. Reeder, Dr. Geo. Curry, and Dr. Carl Moll, Flint, Michigan. Alternate delegates include: Dr. H. E. Randall, Dr. D. R. Wright, and Dr. Max Burnell, Flint, Michigan.

C. W. COLWELL, M.D., *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The November meeting of the Gratiot-Isabella-Clare County Medical Society and the Ninth District Dental Society was held in the Wright Hotel, Alma, Thursday, November 8, 1932. Thirty-five had dinner together, after which Dr. B. B. Pettit called the meeting to order and introduced Dr. U. Garfield Richert from Ann Arbor, who spoke for over one hour on the problems common to the physicians and dentists.

The doctor's talk was very instructive and would have to be heard to be appreciated. He explained the difficulties the State Board of Registration in Dentistry had with the unethical dentists, also related some of the problems in dealing with fraudulent advertisements of tooth pastes and mouth washes. The doctor then took up the relation of tooth infections to arthritis.

On behalf of the dentists and physicians present Doctor Pettit thanked Doctor Richert for his excellent presentation of this subject.

The meeting adjourned.

E. M. HIGHFIELD, M.D., *Secretary.*

The annual dinner of the Gratiot-Isabella-Clare County Medical Society for the members and their wives was held in the Wright Hotel, Alma, Thursday, December 1, 1932. Twelve members and nineteen visitors had dinner together at 6:30.

After dinner President Burt called the meeting to order and called for a report of the nominating committee. The Secretary read the report, which was as follows: For president—T. J. Carney; for vice president—A. D. Hobbs; for secretary-treasurer—E. M. Highfield; for delegate to the State Society—T. J. Carney.

The secretary read his report, which was as follows: Including this meeting we have met eleven times this year. We were addressed eight times by doctors from outside the county; once by Professor Kaufman from Alma College. Once we were shown pictures by Mr. Ricketts of the Petrolagar Company, and one program was addressed by our own members.

President Burt then introduced Dr. Berneta Block, who recently returned from Korea, where she was superintendent of a missionary hospital for four years. Doctor Block described her trip from the Golden Gate at San Francisco with a stop at Hawaii to the Capital of Japan and then by boat and rail to Soel, Korea, where she took charge of the sixty-bed hospital. She spoke of the difficulty of learning the language and passing the medical examination in Japan. Doctor Block also gave us many other interesting descriptions of the customs and habits of the people of Korea. One was conducting a confinement in a one-room cottage without chairs and the bed being on the floor with ten or more children and adults in the room and no ventilation—the windows not being made to open.

The doctor's talk was very interesting and proves what a self-sacrifice it is to be a missionary, and how grateful we should be that we live in the United States of America.

On behalf of the Society, President Burt thanked Doctor Block for her most interesting description of these Korean folk and bringing us this message.

The meeting adjourned.

E. M. HIGHFIELD, M.D., *Secretary.*

HILLSDALE COUNTY

On November 2, 1932, the Hillsdale County Medical Society met at the Ambler House, in Hillsdale, at 6:30 p. m., the Vice President, Doctor Mattson, in the chair.

After an excellent dinner served by the resident students in the Course of Home Economics of Hillsdale College, the Vice President called the meeting to order and the minutes of the last meeting were read and approved.

The Vice President then introduced the speaker of the evening, Dr. R. C. Jamieson, of Detroit, who addressed the meeting on "The Symptomatology and Treatment of Common Skin Diseases," illustrating his lecture by a large number of lantern slides.

He called especial attention to the various forms of eczema, classing them all together as dermatitis, later touching upon the various forms of ringworm and showing the difference between these and the eczematous inflammations or true dermatitis.

After illustrating the diagnosis of these diseases, he took up the treatment, discussing the usual washes and ointments; systemic medication where indicated, and especially stressed the value of radium and the X-ray in selected cases.

After full discussion of these topics he took up the consideration of ringworm and allied diseases, including so-called "athlete's foot." These diseases he said are caused by a fungus which must be destroyed before a cure can be achieved. Prominent in this field are washes of sodium hypochlorite, mercurials and mild X-ray; especially absolute sterilization of everything coming in contact with the foot; prevention by never placing the bare foot, if diseased, on any surface in the house, not even one's own room until cured.

Impetigo contagiosa, he stated, is very dangerous in babies and may be cured by ultra-violet ray; also by boric acid, with nutritious diet to build up the vitality of the child.

Doctor Jamieson was asked a great many questions which were fully answered and at the close he received a cordial vote of thanks from the society for his interesting and highly instructive lecture.

Following Doctor Jamieson's address, Doctors Van Scoick, Clark and Smith of Jackson, spoke of the effort being made in Jackson County to undertake an unassuming campaign of popular education as to the aims of the medical profession in its daily work in prevention, as well as cure of disease. The prevention of cancer was stressed; also, diphtheria, tuberculosis and all other preventable diseases; the importance of periodic medical examinations in those considering themselves well, and the dissemination of knowledge of the warnings of disease; the danger of self-drugging and the danger of too long continuation of many drugs popularly considered harmless, etc., the means of this campaign to be:

1. Lectures by members of societies where opportunity occurs and by other speakers
2. Articles in the public press
3. Demonstration of methods including Von Pirquet's tuberculosis test, the Schick test, etc., to be undertaken gratuitously by the societies from time to time

The response by the Hillsdale County Medical Society to these suggestions was most favorable and a proposal was made to form plans for such work at the next meeting of the society.

The meeting adjourned.

D. W. Fenton, *Secretary.*

IONIA-MONTCALM COUNTY

The annual meeting of the Ionia-Montcalm Medical Society was held at the residence of the Secretary, in Ionia, on Tuesday evening, December 13, 1932, at eight o'clock.

The following officers were elected for 1933: President, Dr. Lloyd S. Dunkin, Greenville; vice president, Dr. Roy C. Lintner, Ionia; secretary-treasurer, Dr. John J. McCann, Ionia; chairman medico-legal committee, Dr. C. H. Peabody, Lake Odessa; chairman public relations committee, Dr. F. M. Marsh, Ionia; delegate to State Society meeting, Dr. W. W. Norris, Portland.

The annual dues were placed at $12.00, including state dues of $8.75, and Associate Dental Members, $3.25.

Dr. Richard R. Smith gave a résumé of the Report of the Committee on Cost of Medical Care, which provoked a general discussion. His recommendations to the medical profession were: to go slow, to keep in touch with developments, and to lend influence in keeping them along well directed lines.

A buffet lunch was served to the thirty-five members and guests present, at the close of the meeting.

John J. McCann, *Secretary.*

MENOMINEE COUNTY

The following are the new officers of the Menominee County Medical Society for 1933: President, H. T. Sethney, Menominee; vice president, Ed. Sawbridge, Stephenson; secretary-treasurer, W. S. Jones, Menominee.

W. S. Jones, *Secretary.*

MACOMB COUNTY

The annual report of the secretary for the Macomb County Medical Society is as follows:

January meeting, twenty members present. Dr. J. J. Corbett spoke on "The Treatment of Hemorrhoids." One new member, Dr. White, of Fraser.

February meeting, sixteen members present. New member, Dr. M. M. Wilde of Warren. Dr. M. M. Jones of Pontiac spoke on "Obstetrics."

March meeting: Twenty-four members present. Four reels of sound motion pictures on "The Anatomy of the Female Pelvis and Repair of Perineal Lacerations." The nurses of St. Joseph's Hospital were the guests of the Society at this meeting.

April meeting: Sixteen members present. Dr. John Engels taken into membership. Speaker, Dr. Butler of Pontiac.

May meeting: Twenty members present. At this meeting the Society voted fifty dollars to the King's Daughters, to help carry on their baby and chest clinics. Dr. McKenzie of Detroit spoke on "The Use of Radium in Gynecological Conditions."

June meeting: Business meeting. Twenty members present. No business of importance.

July and August: No meetings.

September meeting: Fifteen members present. Dr. Osius of Detroit spoke on "The Injection Treatment of Varicose Veins."

October meeting: Twenty-four members present. Dr. Milton Robb, president of our State Society, gave a talk on "Conditions of the Throat." Dr. C. A. Neafie, our councillor, gave a talk on some of the important legislative matters that had been transacted at the annual meeting of the Michigan Society at Kalamazoo.

November meeting: Eighteen members present. Dr. William A. Keane spoke on "The Present Status of Prostatic Surgery."

The average attendance of the year was 62 per cent of the membership. Three new members were taken in during the year and one of these moved away, therefore automatically causing his resignation. At the present time we have thirty-three paid up members. During the year one member resigned from the Society, Dr. Montgomery of Richmond.

The following officers were elected for the coming year: President, Dr. G. F. Moore; vice presi-

dent, Dr. W. J. Kane; secretary, Dr. J. N. Scher; treasurer, Dr. J. M. Croman, Jr.

The delegate to the annual meeting of the Michigan State Medical Society is Dr. J. N. Scher; alternate, Dr. Russell Salot.

J. N. SCHER, M.D., *Secretary.*

MECOSTA COUNTY

The regular meeting of the Mecosta County Medical Society was held at the Western Hotel, Big Rapids, Tuesday, December 13, 1932. The treasurer of the Society was host.

Those present were: Doctors Yeo, Franklin, Treynor, Kelsey, Campbell, Soper, Kilmer, Grieve, Bruggema, Burkhart; Dentists Shepherd, Rogers, Miller and Shank. Dinner was served at 6:45 p. m. The meeting was called to order by the vice president, Dr. Kelsey, in the absence of President MacIntyre.

The reading of the minutes of the last meeting was deferred to the next meeting in January. Communications were read from State Society, relative to change in amount for dues to be remitted to State Society, now $8.75 per member, also several letters relative to the "Report of the Committee on Costs of Medical Care," recently made public. Communications were received and placed on file.

The Society then engaged in a round-table discussion of the report. The consensus of opinion seemed to be in favor of the minority report of the committee. Doctors Treynor, Yeo, Kelsey, Campbell, Grieve and Burkhart gave opinions. Dentists Shepherd, Miller and Rogers discussed the work of the Couzens Fund and criticized the method of handling dental work.

The secretary of the Society, Dr. Burkhart, commented on the various opinions of medical and lay press, expressed in the State Journal, *The Journal of the American Medical Association*, and urged all members to read them carefully. Dr. Treynor suggested that no action be taken by this Society until the next meeting in January, 1933, when the members will have had time to read all comments.

Election of officers for 1933 resulted as follows: President, Dr. James B. Campbell, Big Rapids; first vice president, Dr. E. P. Bunce, Trufant; second vice president, Dr. Paul B. Kilmer, Reed City; secretary-treasurer, Dr. John L. Burkhart, Big Rapids; legal advisor, Dr. James B. Campbell, Big Rapids.

The delegate to the meeting of the State Society is Dr. G. H. Yeo, Big Rapids; alternate, Dr. Paul B. Kilmer.

Financial report of the secretary-treasurer showed all bills paid and a substantial balance in the bank.

JOHN L. BURKHART, *Secretary-treasurer.*

MUSKEGON COUNTY

At our regular September meeting Dr. C. L. A. Oder gave a very instructive paper on "Tonsillectomy by Diathermy." Twenty-two doctors attended the dinner and several more came to the meeting afterward.

The October meeting was held at the Country Club. After the dinner Dr. Loughery gave a paper on "Surgery of the Prostate." Seventy-four were present.

The November meeting was held November 29 at the Century Club. After the dinner Dr. R. I. Busord gave a paper and showed a motion picture on "The Use of Maggots in the Treatment of Osteomyelitis." Twenty-six members were present.

Dr. Bartlett announced the annual meeting to be held at the Muskegon County Tuberculosis Sanatorium Friday, December 16, 1932.

M. E. STONE, M.D., *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of Saint Clair County Medical Society was held November 1, 1932, at Edgewater Inn, Port Huron, Mich. Supper was served to twenty members of the society and to two guests.

The meeting was called to order with Doctor Patterson, the president, presiding. The scientific program was preceded by a committee report by Dr. J. C. S. Battley, chairman of the committee to arrange for speakers to address Parent-Teachers and other organizations. Doctor Battley stated that a list of speakers with the topics to be discussed by each speaker was in preparation. Dr. T. F. Heavenrich, Councillor of the Seventh District, invited the members of the Society to attend a meeting of the Huron County Medical Society on November 10, 1932. Doctor Heavenrich stated that this was to be the first meeting of Huron County Society held in several years.

Dr. C. K. Valade of Detroit addressed the Society on skin diseases. The speaker covered the subject in a most acceptable manner, taking up the classification, symptomatology and regional distribution of skin diseases. Doctor Valade then discussed the treatment of some of the more common skin diseases and throughout the talk showed many lantern slides of dermal lesions. The discussion was opened in a most acceptable manner by Doctor Battley and carried on by Doctors, Callery, MacKenzie and McColl. After a very wholesome and comprehensive discussion Doctor Valade closed his subject by replying to many of the queries made during the discussion. The meeting was adjourned with a standing vote of thanks to the speaker for the splendid evening enjoyed by all present.

* * *

A regular meeting of Saint Clair County Medical Society was held November 15, 1932, at Edgewater Inn, Port Huron, Michigan. Supper was served to eleven members and two guests.

Doctor Patterson, the president, presided. Eighteen members and two guests were present. The minutes of the preceding meeting were read and adopted. A letter from Doctor S. W. Donaldson of Ann Arbor, Michigan, offering to supply a speaker from the newly formed State Association of Roentgenologists to a future meeting of the Society upon the subject of "The Use of X-ray from a Diagnostic Standpoint," was read. A letter from Dr. Don A. Bailey, Secretary of the Highland Park Physicians Club, inviting the members of the Society to attend the next meeting of that organization and giving a résumé of the program proposed for November 30, 1932, was read. The Secretary then covered the points brought out in the monthly Letter from the Secretary of the State Society.

Dr. Ira M. Altshuler of Detroit addressed the Society upon "Epidemic Encephalitis" in a very acceptable and most interesting manner. The speaker showed a fine knowledge and a practical experience with this most baffling clinical entity. Discussion followed by Doctors DeGurse, Callery, Battley, Heavenrich, LeGalley and Armsbury. Doctor Altshuler closed the subject in the usual manner. A rising vote of thanks was extended the speaker before adjournment.

GEORGE M. KESL, Secretary-Treasurer.

* * *

A regular meeting of Saint Clair County Medical Society was held at Edgewater Inn, Port Huron, Michigan, Tuesday, December 6, 1932. Supper was

served to fifteen members and five guests after which the meeting was called to order by President Patterson, with eighteen members and five guests present.

The minutes of the preceding meeting were read and approved.

The essayist of the evening was Dr. C. G. Weltman, of Detroit, who addressed the society upon the subject of "Renal Calculus." Beginning with a comprehensive survey of ancient medical history the speaker took his hearers through the entire subject including theories of etiology, symptoms, a description of renal colic and finally treatment, after which a series of slides with pathological specimens were demonstrated.

The chief points stressed by Doctor Weltman were as follows: (1) There are three types of calculi, generally speaking, oxalate, phosphate and urate, of which the first two give the most trouble, the latter type being small and more easily passed or overlooked; (2) the most recent theory of etiology is that there is an unbalanced colloid concentration, the result of a long continued lack of vitamin A in ingested food plus a secondary factor of slowing in urinary secretion; (3) all attacks of colic are not due to the formation of calculus but may, in some cases, be due to swelling of the mucosa, spasm of the ureter or kink in the ureter, all of which act in pain production by causing a back pressure dilating the pelvis of the kidney and stretching the capsule; (4) in such event, i.e., renal colic, the quicker the back pressure be relieved the less damage results to the parenchyma of the kidney and in the essayist's own plan of treatment a ureteral catheter is passed by the calculus or obstruction as soon as possible after the colic is noted; (5) the normal reaction of secreted urine is acid, therefore anything which causes a long continued alkalinity of the urine favors the formation of a calculus; in the speaker's own experience patients in bed on a Sippy diet over a long period often develop calculus—the factor of a prone position, the patient lying on his or her back, plus the changed reaction of the urine, favors the formation of renal calculi; (6) the chief bacterial agents are the staphylococcus albus and the bacilli of the colon group; the former cause an alkaline reaction and the latter an acid, the former being more difficult, by far, to clear up, if, indeed, the infection can be eradicated at all; (7) with a calculus and infection in one kidney and with a normal or near normal degree of function and freedom from infection and calculus in the other kidney it is best to do a nephrectomy on the affected side, because unless this is done the sound kidney will eventually become infected, this being especially true when the bacterial agent is the staphylococcus; and (8) it is good surgery to decompress a kidney first as is done in prostatic work before proceeding with nephrotomy or other operation; if necessary both pelves may be drained.

H. W. Plaggemeyer opened the discussion, followed by Doctors DeGurse, Heavenrich, MacPherson, Callery, Brush, Lammy and Patterson. After the discussion Dr. Weltman closed the discussion. The President thanked the speaker and the Society extended him a rising vote of thanks before adjournment.

George M. Kesl, *Secretary-Treasurer.*

SANILAC-HURON COUNTY

A meeting of the Sanilac-Huron County Society was held at Brown City, December 5, 1932.

It is to be doubted whether even a more enthusiastic gathering of medical men took place than at this meeting, held in a small town and in a county boasting of only nineteen doctors.

There were present at this assembly one hundred and five doctors and they came from all parts of this territory. Huron, Lapeer, Tuscola, St. Clair, Wayne, Genesee, Bay, and Sanilac were all represented.

One of the most pleasing features of the evening was the attendance of Councilor Paul Urmston and fourteen doctors from Bay City, likewise the State President and four ex-presidents in the persons of Drs. Angus McLean, Louis Hirschman, Herbert Randall and Carl Moll.

Each of these honored guests had a message for us, and much time was given to the discussion of Medical Economics. A decided unity of opinion was evident and those present gathered much to clarify the situations as related to their individual counties.

Doctor Johnson of Caro described in detail what his society had accomplished in regard to indigent care and pay for the doctor. It is hoped in the near future he will give the details to the State Journal, so that other counties may copy. They have gone far towards the solution of this vexing problem.

The addresses given by the above named past presidents and the able Doctor Robb were enthusiastically received but it took the old reliable Dr. John Campbell—The Orator of the Thumb district—to bring the men to their feet with his able appeal for Harmony, Unity and Steadfastness in order to combat the inroads of State Medicine.

It is needless to say, the fight is over in this seventh district. We are back of our State and National organization to a man. A call for help will result in one hundred per cent support.

T. H. Heavenrich, *Councilor.*

TUSCOLA COUNTY

The regular meeting of the Tuscola County Medical Society was held December 1, 1932, at Caro, Michigan. Election of officers resulted as follows: President, Dr. O. C. Johnson, Mayville; vice president, Dr. Annie Stevens Rundell, Mayville; secretary-treasurer, Dr. Lloyd L. Savage, Caro.

The following were appointed members of the Public Health Legislation committee: Dr. W. Petrie, Caro; Dr. S. H. Kavin, Unionville.

Delegate to the State Convention is Dr. C. N. Race, Caro, with Dr. E. C. Swanson, Vassar, as alternate.

Lloyd L. Savage, M.D., *Secretary-Treasurer.*

AORTIC STENOSIS WITH CALCIFICATION OF THE CUSPS

According to Henry A. Christian, Boston, there is a form of cardiac lesion, not infrequent, which has a clinical picture so characteristic that it deserves more frequent recognition than it commonly receives. Its characteristics are: (1) occurrence chiefly in males relatively late in life; (2) slow progression of the lesion with symptoms of decompensation appearing late, though not necessarily prolonged after their development; (3) the presence of a systolic thrill and harsh, loud systolic thrill in the aortic area, with or without a diastolic murmur of aortic insufficiency; (4) often a characteristic pulse with a normal or decreased pulse pressure; (5) enlargement of the heart; (6) a history of rheumatism early in life; (7) roentgenographic demonstration of calcification in the region of the aortic valve, and (8) at autopsy stenosis of the aorta with deposits of calcification in the cusps—while the other valves are not organically abnormal—and great hypertrophy of the heart. The author reports twenty-one such cases in which the diagnosis was confirmed by necropsy.—*Journal A. M. A.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

KENT COUNTY

On Wednesday evening, April 13, 1932, a meeting was held in the home of Mrs. Thomas C. Irwin, to introduce Mrs. Earl McIntyre, state president, and Mrs. Guy Kiefer, state organizer of the Women's Auxiliary of the State Medical Society. Mrs. Kiefer explained the purpose of the organization, pointing out its value from an educational, philanthropic and social aspect in connection with the State Medical Society. A charming tea followed the program. There were about ninety women present.

The next meeting was held on April 20, 1932, in the Club Rooms of the Kent County Medical Society. Mrs. Thomas Irwin presided. General plans were discussed, and the following officers and chairmen of committees were elected: Mrs. Thomas C. Irwin, president; Mrs. Carl Snapp, vice president; Mrs. John M. Whalen, corresponding secretary; Mrs. John N. Holcomb, recording secretary; Mrs. A. V. Wenger, treasurer. Constitutional Committee: Mrs. A. B. Smith, Mrs. Ferris N. Smith. Social Committee: Mrs. Burton R. Corbus. Teams Committee: Mrs. A. J. Baker, Mrs. E. P. Billings. Educational Committee: Mrs. J. B. Whinery. Public Relations: Mrs. Richard Smith. Philanthropy: Mrs. Ward Ferguson. Historian: Mrs. P. L. Thompson.

On May 18 Dr. Ferris N. Smith addressed the group of women, presenting a paper on "Plans for the Reduction of Costs of Medical Care." This talk was most enthusiastically received.

The final event of the Auxiliary's activities for the season terminated in a luncheon at the Cascade Country Club, at which about one hundred doctors' wives were present.

The first fall meeting was held on October 5, 1932, when plans for the winter's activities were discussed. About eighty women were enrolled as members of the Auxiliary at that time.

A benefit bridge party was held on November 30 in the evening. About one hundred and eighteen Auxiliary members and friends were present. It was a very delightful and successful event. Proceeds from the party were given to Dr. Edwards towards the poor children's Christmas party that Dr. Edwards has been sponsoring for several years. The Y. W. C. A. has very kindly offered us the use of their rooms for our meetings which are held at the same time the Kent County Medical Society meets. We are greatly indebted to them for their kind hospitality.

There was no meeting in December, but a very interesting program has been arranged for the January meeting.

ORBA D. TORGERSON.

OAKLAND COUNTY

At the November meeting of the Oakland County Women's Auxiliary a most interesting talk was given by Miss Christine Mackenzie, Director of the Outpatients Department of the Women's Hospital in Detroit. She discussed the Maternal Health Clinic and its activities in that hospital. There followed a Hygiea exhibit, and later tea was served by two past presidents, Mrs. Frank Mercer and Mrs. Robert H. Baker, to members and their guests.

WAYNE COUNTY

The regular monthly meeting of the Woman's Auxiliary to the Wayne County Medical Society was held on Tuesday, November 8, 1932, in the Society's Club rooms, Woodward at Canfield, Detroit, at 2 p. m.

Miss Margaret C. Babcock was the speaker for the afternoon. Her subject was *"Speech Improvement Training."*

Miss S. S. Wittenberg, mezzo soprano, sang a group of songs with Mrs. Sol Kesler at the piano.

The Welfare Committee reported thirty-six garments completed for the needy school children, including sweaters, underwear and dresses. They have also completed several bags for the Red Cross. This committee earnestly requests all members to help with this worthy cause. The sewing groups are held in the Wayne County Club rooms on the first Tuesday of every month from 10 a. m. until 3 p. m. and every third and fourth Tuesday evening of every month. The women usually attend these sewing bees on the Tuesday evenings as mentioned above while their husbands are attending the scientific meeting of the Wayne County Medical Society in the Maccabees building. After the scientific meeting the doctors and their wives join in whatever entertainment is in progress given by the Welfare Committee.

The Ways and Means Committee reported that a ($5.00) five dollar Donor Deluxe luncheon will be given February 1, 1933, at the Hotel Statler.

For many weeks the women of the Ways and Means Committee have been busily engaged with preparations for their *Donor Luncheon.* This committee extends a very cordial invitation to the wives, mothers, daughters and sisters of the members of the Wayne County Medical Society to help with the Wayne County welfare and many other objects. Reservations can be made by calling University 2-4124. Here is just an idea of what some of the members are doing. One member is giving knitting and smocking lessons at the Wayne County Medical Society club rooms on the Tuesday evenings that the women meet to sew for the needy children. Another member is selling her recipes for 10 cents each. She is also selling Christmas cards. Her telephone number is Euclid 0146 W. Two of the members are giving a cookie party. Three other members are planning to give a bridge tea. One of the members is selling the Better Homes and Gardens magazine. Two members are planning a bridge luncheon.

The Publicity Committee reported sending articles in to the Bulletin every week since the initial meeting in the fall which was held on September 20, 1932. Articles and some pictures have been sent to the four papers every month.

The Membership Committee reported twelve new members.

The Program Committee reported that the year books have all been mailed out to the wives of all members of the Wayne County Medical Society. The entertainment throughout the year will be given by professional entertainers. On the cover of the Year Book is a reproduction of the home of the Wayne County Medical Society. The insignia of the Woman's Auxiliary to the Wayne County Medical Society appears on the back page of the year book.

MRS. L. T. HENDERSON, *Publicity Chairman.*

All news and announcements concerning auxiliary activities are to be sent in to Mrs. S. L. DeWitt, 612 Pennoyer Ave., Grand Haven, Mich., by the first day of every month as has already been requested by personal letter.

OF GENERAL MEDICAL AND SURGICAL INTEREST

MASSACHUSETTS AND ARIZONA VOTE ON CHIROPRACTIC ACTS

On election day, November 8, the citizens of Massachusetts and of Arizona will vote on initiative petitions to promote the practice of chiropractic. The Massachusetts Medical Society and the Arizona Medical Association have given ample warning of the menace to public health should the laws that the chiropractors propose be enacted. The principles of ethics emphasize the duty of physicians to warn the public against devices and false pretensions that may cause injury to health and loss of life. On election day, every physician in Massachusetts and in Arizona should discharge that duty to the best of his ability.

Massachusetts has never legalized chiropractic. The chiropractors, therefore, are appealing directly to the people. They modestly define chiropractic as "the science or practice of locating and adjusting by hand the malpositions of the articulations of the human spine." The chiropractors of Arizona defined their calling in the same manner when they procured the enactment of the chiropractic act now in force; but that was in 1921. Now they seek authority to practice what they call "chiropractic," but they define it as "that system of treatment that employs palpation, nerve tracing, analysis, and adjustment of any displaced vertebræ in the spinal column and of any other abnormalities, and which teaches that abnormal health is caused by the interference with nerve energy and that health is restored by the locating and removing of any interference with the transmission of nerve energy." The pending Massachusetts initiative act proposes to forbid any chiropractor from practicing obstetrics, administering drugs or performing surgical operations. The Arizona act of 1921 contained just such limitations, but now the chiropractors of Arizona are asking removal of the limits. Apparently this business is not profitable, if it is limited to manipulations of the spine performed by the hand only. The chiropractors seek, therefore, the right to treat any and every part of the body, for any and every disease and injury to which it is subject, and to use every available method of diagnosis and treatment. They want to be converted into doctors of medicine without being required to possess the qualifications. This is an excellent demonstration of the chiropractic desire to enter medical practice through the basement.

The Massachusetts chiropractors do not ask the right to sign death certificates. They propose that such certificates be signed by the medical examiners of the districts in which the deaths occur. The Arizona chiropractors, however, who are not allowed to sign death certificates, now seek the right to do so. The Arizona chiropractors are seeking even a statutory right to practice chiropractic in every hospital and public institution supported in whole or in part by public funds. As a climax to their demands, they propose that the license fees and annual registration fees of Arizona chiropractors be increased, and that the entire increase be paid to the state chiropractic association to enable it to promote the interests of chiropractic in Arizona. This would make the state officials act as collector and treasurer for the chiropractic organization and force every chiropractor into membership.

The experience of Arizona should warn the voters of Massachusetts that the chiropractic measure before them is the thin edge of a chiropractic wedge. If it is once introduced into the Massachusetts code, the people may look forward to efforts to drive it home so as to expand chiropractic in Massachusetts as it is proposed today to expand it in Arizona.

In Arizona, the danger of the initiative chiropractic act is graver than in Massachusetts, not only because of the greater demands of the chiropractors but also because the Arizona legislature cannot amend or repeal an act adopted by the initiative process, as the Massachusetts legislature can do. In Arizona, only a new initiative act can change an initiative act that has once been adopted. The difficulty of combating the chiropractic menace in Arizona is unusually great, too, because the voting population is scattered over so large an area. These difficulties, however, make it more important that every Arizona physician devote himself on election day to the defeat of the chiropractic menace.—*Jour. A. M. A.*, Nov. 5, 1932.

JOSEPH F. F. BABINSKI, 1857-1932

(New England Journal of Medicine)

The death of Dr. Joseph Francisco Felix Babinski, October 30, in Paris, France, removes from the medical world a figure of international fame. He died at the age of seventy-five, after a career in neurology and medicine that made his name known in every clinic and to almost every doctor in the world. Babinski was one of the founders of the Society of Neurology of Paris, a member of the French Academy of Medicine and a commander of the Legion of Honor.

Of Polish descent, although born in France, November 18, 1857, Babinski graduated in medicine from the University of Paris in 1885 with a thesis on multiple sclerosis, of outstanding value for its time. This paper was the first of a long series of articles, the chief of which were gathered together in an extensive, documented bibliography, in 1913. Here one finds extracts from his papers, as well as the striking illustrations so characteristic of Babinski's publications. This work, one of extreme value, gives a clear idea of the active nature of Babinski's mind and the multiplicity of his investigations into practically all of the divisions of neurology. He added many signs to clinical medicine, the most important being the reflex which goes under his name.

Babinski's sign was first described in a preliminary note read before the Société de Biologie, February 22, 1896; it was a simple statement that, "in certain cases of 'paralysis,' the toes on the affected side, instead of flexing when the sole is stimulated, execute an extensor movement on the metatarsal." Two years later, he gave a full account of this phenomenon and his excellent description summarized the important features of the normal and pathological plantar reflex in human beings. To his description there has been little to add, in later years, although the fanning of the outer toes, which often is part of the reflex, was not mentioned in the original paper, but was separately described in 1903. An immense literature has grown up surrounding Babinski's sign since the date of the original description and it is now firmly established that this reflex, indicating disease or injury of the pyramidal pathway, is only second in importance to the Argyll-Robertson pupil as a sign of a structural lesion of the central nervous system. Babinski's description was soon brought to the attention of the English-speaking medical world by the paper of James Collier, published in 1899, in which Collier first fully appreciated the functional significance of the normal plantar reflex and its pathological counterpart, the Babinski sign. More recently, this re-

flex has been the subject of an extensive investigation by Professor John F. Fulton of the Yale Medical School. He has traced the development of the reflex through the primate series of animals in his "The Sign of Babinski; a Study of the Evolution of Cortical Dominance in Primates." In Professor Fulton's monograph one will find a translation of Babinski's original description, a discussion of the subject of the plantar reflex in general, as well as a brief summary of the clinical implications of bilateral cortical lesions as noted in traumatic cerebral diplegia and in Little's disease.

As a clinical neurologist and teacher Babinski held a high place in Paris for many years, although somewhat overshadowed by Pierre Marie and Jules Déjerine. Originally chief of Charcot's clinic, Babinski later developed his own clinic at the Hôpital de la Pitié, one of the more modern hospitals in Paris, situated not far from the famous Salpêtrière. Here his clinic grew to great proportions; a good description of his justly famous Monday morning demonstrations is contained in an article by Dr. Malford W. Thewlis.

Babinski's work on functional diseases has been rather obscured by the eponymic character of his description of a single reflex. He added greatly to our knowledge of nervous disorders in general, playing a particularly important rôle in postwar Paris, where he had hundreds of soldiers under his care. By his death medicine loses a great figure, a man who will always be remembered on account of his name's being attached to an important reflex, but whose contributions to the whole subject of neurology were of outstanding value.

EFFECTS OF USE OF CAUTERY PUNCH OPERATION ON NECESSITY FOR PROSTATECTOMY: PRESENTATION OF NEW CYSTOSCOPIC IRRIGATING, FULGURATING ATTACHMENT TO CAUTERY PUNCH INSURING DOUBLE VISUALIZATION

Thirteen years ago, John R. Caulk's, St. Louis, operation was apparently limited in usefulness to the bars and contractures of the vesical neck, but during the process of development it has been gradually applied to the larger obstructions with equal effectiveness, until at present he finds that, at least in his hands, it is effective in almost 100 per cent of all obstructions, regardless of size; indeed, during the past year he has performed but one prostatectomy. The author is performing the punch operation for the relief of all obstructions occasioned by cancer of the prostate. He has also found it admirably effective in correcting both immediate and late postoperative obstructions following incomplete suprapubic enucleation and in hastening the closure of indolent suprapubic fistulas when for obvious reasons, such as the intervention of serious complications, the enucleation has not been undertaken for fear of jeopardizing the patient's life. It has been equally efficacious in removing the obstructions at the neck of the bladder in women and children resulting from congenital or inflammatory contractures. In his series of 781 cases there have been 4 women and 3 children, 2 girls and a boy. The children were affected with chronic pyelonephritis with uremia complicating congenital contractures at the vesical neck, and their obstruction was entirely relieved by means of the "child's punch." The author presents an improved instrument consisting essentially of the cautery punch sheath and the punch tube, with the addition of a carrier for the McCarthy foroblique lens system, an irrigating channel provided with a small water-tight device uncomplicated by screws or ratchets and another small attachment which enters the irrigating channel, constructed for the purpose of carrying a fulgurating electrode which is easy to manipulate and also effective in applying a light spark to the site of bleeding so that hemorrhage can be accurately controlled. The small rectangular bakelite button, which is fused to the electrode, permits of free rotation. The direct forward vision provided by the cystoscopic component enables the operator not only to visualize the tissue both prior and subsequent to resection but to determine the presence of persisting obstruction. The improved instrument embodies certain features lacking in the previous model which will ultimately enable it to attain a higher degree of efficiency in the treatment of prostatic obstructions.—*Journal A. M. A.*

OPERATIVE RELIEF OF PROSTATIC OBSTRUCTION

Henry G. Bugbee, New York, states that the earliest surgical attempts to relieve prostatic obstruction were attended by a high mortality rate and unsatisfactory functional results owing to a lack of a clear understanding of the pathology of the prostate and secondary changes in the body, and also to incomplete operation. With a clearer understanding of the pathologic changes of prostatic obstruction and its far-reaching effect on the various systems of the body, the institution of a careful study of the various body functions, especially renal function, the proper preparation of the patient for operation and the well conceived operative technic and postoperative care, prostatectomy for hypertrophy has taken a place where it compares favorably with any major operation on any similar class of patients who are operative risks. With the perfection of modern cystoscopes and urethroscopes and the use of electrodes capable of carrying high frequency currents of high potentiality, resection of the prostate, namely, the removal of sections of tissue of sufficient size to relieve obstruction, is possible in carefully selected cases, under sight and with the control of hemorrhage. The scope of applicability of the latter method and the permanence of the results will depend on its further use and observation extending over a long time.—*Journal A. M. A.*

RESULTS OF PROSTATE RESECTION OVER A PERIOD OF SEVEN YEARS

Hermon C. Bumpus, Jr., Rochester, Minn., has felt that the tardiness of the urologists in adopting the Caulk cautery punch operation for the treatment of urinary obstruction was due to the lack of adequate vision afforded by Caulk's cautery punch opertion, for when Davis modified Stern's resectoscope so that portions of obstructing tissue could be resected under ample vision, the interest aroused was almost immediate, although the fundamental principles of the procedure are identical. Believing that these principles were sound and having employed Caulk's instrument in twenty-three cases, he used it in fifty cases of urethral obstruction during the years 1925 and 1926. In fifteen, the removed tissue was adenofibromatous, and in thirty-three the inflammatory reaction predominated the microscopic picture. In two cases the specimens of tissue have been lost. Twelve of the fifteen patients suffering from adenomatous hypertrophy were operated on in 1925. Nine have written in 1932 as follows: 1. "Urination has not improved but I feel fine." Fifteen months after the operation examination for residual urine was made and none was found. 2. "Improved for but a few months." 3. "For a couple of years not so good, now urination is fine." Examination was made in the last case for residual urine four years after operation and only 10 c.c. was found;

prior to operation 60 c.c. was present. 4. "Have no trouble at all in starting stream." 5. "No difficulty since operation." Cystoscopic examination in this case recently did not reveal residual urine. 6. "I have had scarcely any difficulty since operation." 7. "Urination improved, have never used a catheter." Seven years previously this patient had had 190 c.c. of residual urine. 8. "Had to have a prostatectomy a year after your punch operation. Urine is now cloudy with heavy sediment." The ninth patient returned to the clinic this year; although there was 150 c.c. of residual urine before the resection by cautery seven years previously, none was found on recent examination. Since adopting this method of resection, up to Jan. 1, 1932, the author has used it in 187 cases of urinary obstruction; 75 of these cases were due to benign adenomatous hypertrophy and 93 to chronic inflammatory disease, 17 to carcinoma and 2 to tuberculosis. He concludes that the late results of transurethral resection would indicate that recurrence of the obstruction even in cases of adenofibromatous hypertrophy is the exception, and that complete relief from residual urine by the entire removal of all obstructing tissue is essential to success, and therefore makes the transurethral resection of excessive amounts of tissue to relieve obstruction a hazardous procedure, preferably undertaken by prostatectomy.—*Journal A. M. A.*

INSURANCE PLANS AND THE DOCTOR

Various groups have for some time been casting covetous glances at the possibilities for profit that exist in the application of business methods towards bridging the gap between doctor and patient. Plans innumerable, based on the idea that added income could accrue through bringing the doctor's service to the patient's door, have been repeatedly proposed by agencies outside the profession. To all of these the profession has up to this time turned a deaf ear. Now, however, fresh effort, encouraged both by the anticipated report of the Committee on the Costs of Medical Care, and the greater likelihood of a cordial reception on the part of physicians, is being directed towards the widespread adoption of health insurance plans of one sort or another, and it is certain that many members of the medical profession will very soon be called upon to decide for or against these plans.

Shall the physician become the employee of promoters who assure him, at least in the beginning, a steady income perhaps higher than that which he now earns? Or shall he oppose these plans because they include only a small percentage of the doctors in his community, impoverishing the remainder who must perforce exist on left-over crumbs?

Confronted with the necessity of making a decision, the average doctor may, under the stress of present circumstances, cast his lot with some one of the insurance plans. In so doing, however, he must bear in mind that he is giving up the private practice which he has taken years to build, the independence that he has enjoyed, and the privilege of deriving from his life's work those pleasures which the individual of culture and education normally expects. He is exchanging all of this for an assured income paid him for seeing daily a certain number of patients, and treating them by what must eventually become mechanical routine. He becomes, in short, an artisan in the employ of a group that is primarily interested in realizing a profit on its investment. Moreover, the income of which he may feel so assured in the beginning is quite likely to shrink with diminished profits, and may even dry up completely should the plan with which he has affiliated himself prove unsuccessful. In the end, then, the insurance doctor may find himself confronted with the necessity of starting out anew and building a practice from among the thinned ranks of uninsured patients.

To remain aloof from such plans because of their obvious disadvantages and because of the inroads they would be making on medical practice, the physician must be assured that he will not be left standing alone in defense of a principle. Not only must he be assured that the rank and file of the profession will be with him in his stand, but he needs, in addition, an adequate weapon to aid him in withstanding the onslaughts of those who would invade the domain of private medical practice. Whether that weapon takes the form of a counter plan of either complete health insurance with the objectionable features removed, or partial insurance against hospital costs and the technical procedures of medical practice, will be of small moment. Emanating from the medical profession and controlled by that body, it is bound to carry greater weight than any proposal brought forward by outsiders, and is certain to thwart any efforts to disrupt medical practice.

As preferable as it may seem to stand by and hopefully watch these plans come to grief, the possibility of some one or several of the schemes proposed by outsiders meeting with success should spur the profession to thought and action along this line. Doctors in the front line trenches need every support that can be mustered to help them in deciding against giving up their private practices and becoming the employees of non-medical profit seeking groups.—*The Bulletin of the Wayne County Medical Society.*

ROENTGENOTHERAPY OF MALIGNANT NEOPLASMS OF PHARYNX AND LARYNX

According to Maurice Lenz, New York, roentgenotherapy of malignant neoplasms of the pharynx and larynx has up to recently been successful in only occasional instances. The results have improved since the principles controlling radiosensitivity have become better understood and a new, more intensive technic of roentgenotherapy has been perfected by Coutard of the Curie Institute of Paris. The majority of malignant neoplasms of the pharynx and larynx usually do not spread beyond the head and neck until late in the course of the disease, and the entire cancer-bearing area may thus be included within the field of intensive irradiation. For the correct application of this treatment, familiarity with the microscopic observations, the gross anatomy and the clinical behavior of the neoplasms to be treated is essential. Of the thirty-three patients treated, twenty-six were either not benefited clinically or improved temporarily, but the process again became active in less than a year. A number of these patients are still fairly well though they have cancer. Seven others have now remained free from clinical evidence of disease from six months to two and one-half years after treatment. The small number of cases and the short time of observation do not permit final evaluation of this modification of Coutard's method of roentgenotherapy of malignant neoplasms of the pharynx and larynx. However, the results obtained so far are encouraging, and the shortening of the daily duration of treatment seems so important from the standpoint of hospital economy that the author thinks that this method merits further trial.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII FEBRUARY, 1933 No. 2

CONTENTS

The Value of the Roentgen Ray Method in the Diagnosis and Control of Treatment of Tuberculosis. G. E. Richards, M.D. 75
The Periodic Health Examination History Taking. C. G. Jennings, M.D. 85
The Routine Physical Examination. Hugo A. Freund, A.B., M.D. 90
Comments on Neurological Examination and Diagnostic Procedures. Carl D. Camp, M.D. 92
Embolism of the Pulmonary Artery. George G. Rieckhoff, M.D., and Vincent J. Turcotte, M.D. 95
So-called Essential Uterine Bleeding. Norman R. Kretzschmar, M.S., M.D. 98
Saving the Perineum. J. E. Cooper, M.D. 100
The General Aspect of Vesical Calculi. Robert Rosen, S.B., M.D. 102
Streptococcus Meningitis—Report of a Case With Recovery. Norton Canfield, M.D. 108
Undulant Fever (Brucella Infection) in Children. John F. Sander, M.D., F.A.A.P. 109
An Important Chemo-Therapeutic Possibility. Boland Hughes, M.D., and Arthur Binz, Ph.D. 113
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 114
Editorial:
Periodic Health Examinations 116
"Hospital Aid Plan" 117
Limiting the Number of Medical Graduates 117
Technocracy 118
A Plea for Professional Unity 120
After the Tumult and the Shouting Dies 121
A Suggestion for Medical Care of the Indigent 122
The Deadly Dole 122
Obituary 123
Minutes of the Mid-Winter Session of the Council of the Michigan State Medical Society 124
General News and Announcements 139
Society Activity 141
County Societies 145
Woman's Auxiliary 151
Communications 152
Of General Medical and Surgical Interest 152
The Doctor's Library 154

THE VALUE OF THE ROENTGEN RAY METHOD IN THE DIAGNOSIS AND CONTROL OF TREATMENT OF TUBERCULOSIS*

G. E. RICHARDS, M.D.†

TORONTO, ONTARIO, CANADA

In venturing to speak on the subject indicated by the title of this paper, one is at once confronted by two very obvious facts:

First, the subject is an enormous one and could not possibly be properly dealt with in the short space of a single address.

Next, and perhaps more formidable still, the literature which already exists upon this subject is so vast and deals with its every aspect so thoroughly that it is quite impossible to say anything new or original upon it and yet although we think we are thoroughly familiar with the great contribution which roentgenology has made towards the elucidation of the various problems presented by pulmonary tuberculosis, scarcely a week passes in which some new aspect of this most diverse problem is not brought to our

*Read before the Wayne County Medical Society, Detroit, Michigan, May 3, 1932.

†Dr. Richards is Associate in Radiology University of Toronto, and Director, Department of Radiology, Toronto General Hospital.

attention, throwing light upon some previously uncertain point, opening up some new avenue of approach, or pointing the way to new possibilities in diagnosis or treatment.

The problem presented to the profession as a whole is a very complex one, partly medical, partly sociological, partly economic, but everywhere of absorbing interest. No doubt much of the interest and enthusiasm aroused is due to the great advances which have been made towards the conquest of one of the great plagues of human history and to the conviction that we have it in our power to make the conquest complete. It is always interesting to have a part in a winning battle.

To the roentgenologists who have had the good fortune, as many of us have had, to grow up with our specialty and see the truly remarkable and diverse directions in which it has proved to be of value, there is a profound sense of satisfaction in the knowledge that in regard to tuberculosis, roentgenology has made a contribution second to none, and has very materially assisted in achieving the favorable results which have been obtained in the mastery of this disease.

TUBERCULOSIS OF CHILDHOOD

It is obvious that the real hope for any future success in the ultimate control of tuberculosis must depend upon discovering the disease in the child and treating or isolating him for the protection of the rest of the community and a very extensive literature already exists on this subject. How important this aspect of the work actually is, is well known to all Public Health Officers, and specialists in tuberculosis work. It is not necessary to do more here than briefly refer to it.

"During 1929, 1930 and 1931, 16,042 school children in Detroit[1] have been tuberculin tested. These represented 67 per cent of the enrollment in these schools. Thirty-two per cent of the high school pupils and 19 per cent of the grade pupils showed a positive tuberculin reaction. Three thousand four hundred and ninety-nine X-ray films were taken of the reactors, 0.4 per cent of the high school students and three in 11,216 grade school pupils were found to have the adult type of tuberculosis. This is usually a fatal form of disease in children unless detected early and adequate and prompt treatment given. Furthermore, these cases are often spreaders of tuberculosis and should be excluded promptly from school. The finding of these cases warrants the effort and expense made to find them. In addition, however, there were 4.6 per cent with the childhood type of tuberculosis in the high schools and 3.5 per cent in the grade schools. These cases are not infectious to others and will usually overcome their disease if their condition is known and they are given proper care and supervision. It is very important that they be separated from the source of infection. Frequently the finding of a tuberculous child in the school, will, if followed up, lead to the diagnosis of tuberculosis in some other members of the family."

In speaking on this subject, Dr. Henry D. Chadwick[2] refers to the work done by the Massachusetts Department of Health. In the examination of one hundred thousand school children they found tuberculosis of the childhood type represented one and one-half per cent of positive cases and three and one-half per cent of suspicious cases. Of the adult type of pulmonary tuberculosis only one case was found in every three thousand two hundred children examined. In a group of four thousand college and high school students, one case was found in every four hundred and sixty, and he thinks this would be a rather low estimate, since the group studied was a selected group.

It is interesting to observe from these figures that there is a steady and continuous rise in the incidence of tuberculosis as age increases.

Dr. H. W. Hetherington[3] working in Philadelphia, found only three instances of open tuberculosis in more than four thousand children, but this number he also found increases as the age limit is raised and among one thousand four hundred and twenty-five children, between the ages of fifteen and nineteen, apical tuberculosis was found in twenty-two instances, or one and one-half per cent, and of the childhood type in twenty-three instances, or one and three-fifths per cent. Thus there are 3 per cent of these children requiring some kind of special care.

If such figures may be taken as fairly representative of the situation existing in the country as a whole, we are provided with an estimate of the prevalence with which the disease exists in children of school age. Such surveys have proved to be of incalculable value and may become in the future an essential function of Health Boards in most of our cities. The work is of special importance because it forms the fundamental background of the entire problem. But it is to be noted that without roentgenology this work could not be carried on—certainly not in its present form, nor with anything approaching its present accuracy. In most of the centers where this work is being car-

ried out on a large scale only two examinations are now called for—a Von Pirquet test and X-rays of the chest. In this case only the expense prevents the use of X-rays routinely in every examination conducted, but where expense must be considered X-ray films may be made only where the Von Pirquet is positive.

ADULT TUBERCULOSIS—EARLY DIAGNOSIS

There is probably no phrase which has been worked harder than that which stresses the importance of early diagnosis; nor is there any field in medicine more difficult or more fraught with pitfalls. And whether we like it or not, this responsibility rests upon the medical profession and is steadily increasing in difficulty as our knowledge of disease increases.

It is probably not too much to say that the chief difference between the medical practise of the past and that of the present and especially of the future, is that the former dealt with established disease processes and gross lesions, whereas the latter deals with, or will deal with, the earliest possible stages of disease and may never see the gross manifestations with which our predecessors were familiar; and since such an outcome is distinctly within our reach, it is worth a very considerable effort to attain such a degree of skill and judgment as to enable us to recognize these earliest stages. In no disease is this of greater importance than in tuberculosis.

And so it is very disappointing when a clinician makes a sweeping attack upon radiologists generally, because of an asserted tendency to go to extremes in the matter of early diagnosis.

Some years ago a medical paper was published entitled "The over-diagnosis of tuberculosis"[4] in which the writer attacked radiologists especially, and if my memory is correct, he laid down once again the old rule that the only diagnosis of tuberculosis which can be accepted is the demonstration of bacilli in the sputum. I do not know what proportion of the profession would agree to accept such a definition at the present time, nor whether this writer would adhere to that opinion if he were writing today, but from observations which will be recorded a little later, we believe it can be easily shown that such a diagnosis, though undoubtedly conclusive, is at least three and may be five years, or more, *later than it should have been.* If any defense were necessary it would seem to be infinitely better to suspect, or even to label an occasional case tuberculous and never have the disease develop, than to overlook an equal number of cases until they had reached the stage of open lesions with bacilli in the sputum. Much has been made of the mental suffering of a patient who has been told he is tuberculous when he is not, of the loss of time from work and the other sufferings he endures. One may simply reply to such an argument that everything depends upon how the matter is placed before the patient and what interpretation is put upon the wording of a report, or the interpretation of the films. To perform this function in a manner which will protect the patient without at the same time making of him a chronic invalid, is an example of the practise of the art of medicine, and obviously must be undertaken with tact and good judgment.

We first became seriously interested in the problem of the very early diagnosis of tuberculosis many years ago during routine examinations of probationer nurses prior to their acceptance by our Institution as pupil nurses. Later in association with Dr. A. H. W. Caulfeild, we conducted a series of studies on a number of medical students in the freshman year, and thereafter throughout their course in medicine. These students were a group who volunteered as clinical normals for certain serological studies Dr. Caulfeild was conducting and were young men presumably perfectly healthy. Of a total of seventy-seven examined, three were found to have positive radiological evidences and there were eight in whom some suggestive signs were present. As this work was done in 1921, the technical standards were considerably below those obtaining at the present time.

This work impressed upon us the fact that there are a series of slight pathological changes which may be present in a very considerable number of individuals throughout the community who are apparently in perfect health and have no suspicion of these conditions. These changes may be accurately recorded and recognized in X-ray films long prior to any signs or symptoms which can be definitely labelled tuberculous. In some of these cases the pathological processes never develop and the findings may

be disregarded. In some other cases they slowly progress and ultimately develop into definitely established tuberculous lesions. I submit that if we are to do our full duty as physicians we must be able to recognize this stage of the disease and deal with it,

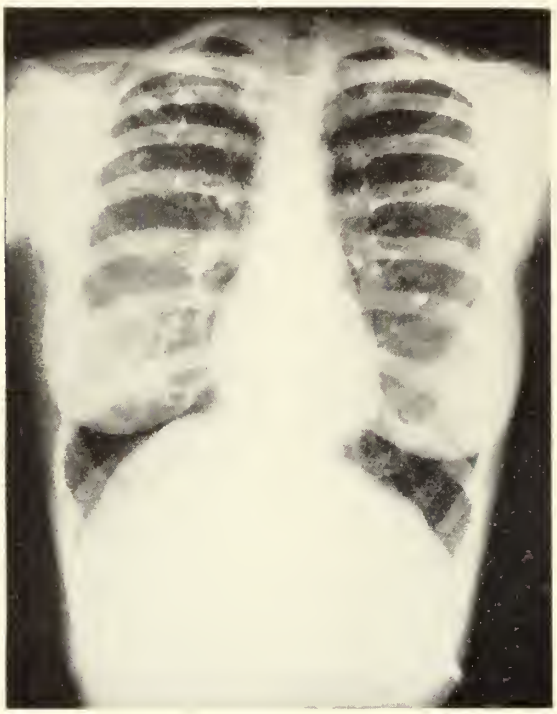


Fig. 1—166,988—Type of case including calcareous and caseo-calcareous glands in hylus regions. Isolated calcific nodes in parenchyma. Pleural thickening over apical caps and stippling. Very exaggerated illustration.

just as we expect to recognize and deal with a host of pre-cancerous lesions.

Since, in the majority of communities, we have not yet reached the point where children are followed through from school age to adult life by periodic examinations, the responsibility for recognizing such a stage of disease rests upon the family physician or the general practitioner who first sees the patient, and this responsibility he must share with the roentgenologist if he is to succeed. A review of case histories of patients such as we are referring to is sufficient to indicate the difficulty of fully measuring up to this responsibility. Some of the cases are entirely baffling, in others there is a sufficiently direct clinical lead to put the physician on the right track. Many of these individuals are simply persons who are physically below par; usually under weight and unable to gain up to normal; people who tire easily; who require more rest than the average and are unable to stand the strain of a full day's duty as well as their fellows. Ordinary physical examination is negative. There is no elevation of pulse or temperature, no change in the sounds within the chest and therefore very little upon which the finger of suspicion can be placed. The superficial examiner stops at that point, but the careful observer asks for an X-ray study of the chest as well as undertaking the other investigations with which we are not especially interested at the present time. Such a study calls for a pair of stereoscopic films of the highest possible standard of excellence; flat single films are entirely useless in this work. And the interpretation of the films demands a great deal of time, judgment and experience in the examination of films of the chest in all stages and varieties of disease. If you are looking for gross shadows easily visualized you will be disappointed, since here we are on the borderland of disease, and gross lesions have not yet developed.

In a typical case illustrating most of the points, we find the hilus shadows are increased, usually more on one side than on the other and there is an associated group of glands, one or more of which show the characteristic evidences of previous caseation with calcification.

Following up from the hylum there is a spray of thickened bronchial trunks extending out towards the periphery of the lung, sometimes terminating in a cluster of tiny calcareous nodules and sometimes having these tiny nodules present along the trunks, producing the appearance known to radiologists as "stippling." If, in addition, there are a few isolated calcific nodes further out in the parenchyma where lymphatic glands do not normally exist, and especially if these also present the appearance of irregular calcification, we feel certain of our ground (Fig. 1).

Frequently in these cases, the pleura over the apex of the lung is thickened and visible. Attention was first directed to this thickening of the pleural cap by Van Zwaluenburg, and it may have been given more emphasis than it deserved, since the pleural cap may be visualized in more than 35 per cent of all chest films. Nevertheless, we believe that a definite thickening (apart from the mere visualization of the pleura) is of considerable importance and should not be en-

tirely disregarded as a diagnostic sign. It is frequently associated with thickening of one or other of the interlobar pleuræ, the most common being that between the right middle and lower lobes.

Taken singly none of the above findings are to be considered of any great importance, but if most, or all of them are present, we believe they are deserving of very careful consideration. If, with these X-ray findings, there is a clinical picture such as outlined earlier, we feel justified in a diagnosis of a pre-tuberculous combination which should be treated as such with the greatest care. One expresses the belief, with all respect to his memory, that many of Weir Mitchell's patients were of this type, and fundamentally tuberculous. One would give a great deal to be able to go back a few years, taking with him a modern X-ray plant and conduct a series of investigations in a Weir Mitchell clinic. Whether there be any truth in this suggestion no one can say at this time, but certainly his method of treatment by rest, forced feeding and isolation, would be exactly the right method today just as they were then.

Such cases should be followed carefully for several years, and, if this is done, without at the same time making a chronic invalid of the patient, nothing but good should result and ample evidence can be brought forward to prove that many individuals would be saved from developing into definitely tuberculous infections.

It is an interesting fact that in a number of cases which have been followed in whom a picture somewhat similar to that which has been outlined, progressed from this preclinical stage to an open lesion, the X-ray findings and Caulfeild's inhibitive reaction both became positive at about the same period of time, both examinations being conducted independently. The length of time this requires obviously varies within such wide limits as to make it impossible to state a rule or even to strike an average, but is frequently from three to five years. Many never develop; some, no doubt, take much longer and have not been recorded, but three to five years represent observed cases from the time a pre-clinical picture was recognized until a lesion could be demonstrated which could be definitely labelled tuberculous.

At this period of the pathological processes which are taking place, we are in a stage which is distinctly pre-clinical and in a field where the X-ray examination is the only reliable guide, unless serological tests become exact and reliable. A recent writer,[5] himself a clinician, has put this so well that I take the liberty of quoting his words. "We have passed from the age of Laennec to the age of Roentgen. A stethoscope is still a very useful instrument but limited in its application and not an instrument of precision. Auscultation bears about the same humble relation to X-ray vision today as percussion did to auscultation twenty years ago. A stethoscope leaves half of our chest problems untouched and only half settles the other half. It can find tuberculosis, but it cannot, except rarely, find early tuberculosis and can never find earliest tuberculosis. It can find tuberculosis but cannot rule out tuberculosis either early or late. It cannot demonstrate pathological changes and cannot follow at all accurately the progress of disease or of healing. All the questions we need to ask about the lesion, extent, stage, type, cavitation, fibrosis, involvement of pleura or diaphragm are answered much more clearly by the X-ray film." The words are those of an outstanding clinician who has been broad enough to keep pace with the progress which has been achieved and frank enough to admit the facts. Eighty per cent of all the information necessary to a correct diagnosis may be obtained from well made stereoscopic films of the chest and their correct interpretation. The other 20 per cent is usually found in the history, rather than by the use of standard methods of physical examination.

EARLY TUBERCULOSIS

We have emphasized the importance of recognizing the pre-clinical stage and in doing so fully realize that we are leaving ourselves open to criticism. Such criticism will be quite justifiable if the method is applied indiscriminately but not otherwise, and no one is more anxious than the roentgenologist that his findings and opinions shall be applied with sound common sense. The position of the roentgenologist is halfway between the general practitioner and the chest specialist or sanatorium. He is thus in a position to be of tremendous value in recognizing the very earliest manifestations

of the disease. How urgent this early recognition is may best be shown by studies from the statistics of sanatoria.

According to McPhedran, "Examination of the post-discharge and follow-up records of such patients as have moderately advanced lesions reveals that approximately 50 per cent are dead five years after discharge from the Sanatorium."

But in the past the factor which has been the most deciding if not the only influence in bringing patients to the doctor and the Sanatorium has been the presence of clinical symptoms or an actual breakdown in health. "Of nine hundred and two pulmonary cases, 7.7 per cent were admitted for treatment within three months of the apparent onset as determined by the history, 11.4 per cent between three and six months and of the entire number 33.8 per cent within one year. A few of these had advanced disease and all had active tuberculosis."[4]

Is it hoping for the impossible to look forward to a time when such cases would be recognized long before the period at which the individuals in this group actually were, and so saved from the consequences and the mortality which this group and all other similar groups suffer? The answer is in the negative at present and the dream can only become a reality if routine physical examinations at periodic intervals become the rule and if such physical examinations include a careful study of the chest by stereoscopic films. Such an examination will reveal tuberculous lesions long before any physical examination can detect them in the form of soft flocculent shadows which may present so slight a change in density as to be invisible on a flat film and therefore difficult and sometimes impossible to show on a lantern slide or published reproduction. The films must be as nearly perfect as is technically possible and must be studied in proper light stereoscopically. Such a case is illustrated by a patient recently observed. In the original films there were a series of faint cloudy shadows just barely discernible. The patient was beginning to tire easily but had no definite physical signs. After a period of bed rest all evidences of the cloudy lesions had disappeared and the X-ray appearance had reverted to that which has been previously described as pre-clinical. This patient was a perfect example of a Weir-Mitchell type and is being kept under supervision but has no indication of recurrence. It is not necessary to ask the question "What would have been this girl's history if her physician had been governed by a system of therapy which demands the demonstration of bacilli in the sputum?" May we not now go one step further and not even demand clinically active symptoms and physical signs? In our present state of knowledge and with the facilities at our command, we should be able to do so.

Physical signs may only become definite in the hands of a skilled observer when the disease is comparatively advanced and to the less skillful this means a much more advanced stage of disease.

Case 1.—Chief complaint, pains in back. Dr. Harvey, Detroit, asked for films of back *and chest.* Patient did not have this done until his return to Toronto. These revealed rather extensive bilateral apical involvement. In the hands of one of our best men no physical signs could be elicited. Later they became manifest and sputum became positive.

Case 2.—In this case the patient was sent to Sanatorium for treatment of pleural effusion. In December, 1926, pleurisy all cleared up and patient was ready to return home and to her baby. As a matter of routine, chest stereos were made and this revealed a soft lesion on the opposite side, not detectable by physical examination even after its presence had been demonstrated by the films. Again a double tragedy was averted: (1) The development of her own lesion to a serious point, and (2) the almost certain infection of her baby. Which brings us very naturally to a discussion of the question of contacts.

CONTACTS

It is doubtful if any greater responsibility ever rests upon the medical profession than that of searching out the course of the infection in every case of tuberculosis which comes under their observation. Sometimes this is a difficult and thankless task, but one may have the silent satisfaction of knowing that by succeeding in this matter he has averted more human tragedy than he is likely to do in any other single effort in his life.

Or. Ogden of Toronto related, and has published, an example which he uses to illustrate the urgent importance of careful history-taking and also the risks of contacts.

Case 3.—A patient was brought to the clinic by the Health Department as a contact. His sister was a known positive but they did not live in the same house. On close questioning he denied exposure and his X-ray films were negative. He was dismissed from the clinic. He returned in two years, at which time his chest plates were positive. Dr. Ogden now repeated the question and the patient still denied exposure. Line of questioning—"Did you ever go to see your sister?" "No." This was repeated until the patient replied, "I have told

you five times that I did not." Finally in despair the doctor changed his question and asked, "Did your sister ever come to see you." Reply, "Oh yes, three or four times a week, I had a sitting room and she had not." Equally difficult was it to obtain any history of cough. The patient insisted that his sister had no cough but merely cleared her throat.

If the number of cases in which a baby in the house has proved to be the indicator could be published, it would make a tale of woe almost unparalleled. In a certain case a baby three months old died of tuberculous meningitis. Fortunately the doctor was alive to the situation and the Health Department took charge of the investigation. One by one the members of the family were examined and found negative until only an uncle who lived in the house remained. He refused indignantly to be examined until forced to come. His films revealed extensive bilateral tuberculous lesions. He went to the Sanatorium in 1925.

His wife was kept under observation as a contact and on first examination was negative. Fifteen months later, however, these became positive. Thus we have, in this case, a latent period of fifteen months. The latent period, however, may be comparatively long, one of our records being up to twelve years under careful observation.

CONTROL OF TREATMENT

Since volumes have been written on this subject it is not to be expected that one can do more in the short space of a single paper than refer briefly to certain aspects of treatment. In this phase of the subject the roentgen-ray has become not only indispensable but the most reliable single guide at all stages. Indeed it is extremely doubtful if the brilliant surgical work at present being carried out could ever have been developed without the roentgen-ray or could be carried on at all in its absence.

The control of treatment of tuberculosis consists essentially in control of fever, of cavity, or of hemorrhage. The greatest advance of the past decade has undoubtedly been our knowledge of the importance of rest to the lung and our means of putting the lung adequately in a position of physiological rest. The time honored method was by bed rest for the whole patient and in many types of lesion this is still all that is necessary.

Whether a lesion can be absorbed by bed rest alone depends at least partly upon the duration and location of the lesion but even here surprises happen and numerous examples could be shown of large lesions with cavity formation undergoing complete resorption by bed rest only.

But while bed-rest may still be regarded as the standard method of treatment it bids fair to be looked upon as antiquated in the very near future in favor of some one or other of the numerous surgical methods which have recently been brought to such a stage of perfection.

The immediate results of the application of these methods has been a striking reduction in the death rate. In this respect you have a brilliant example in your own community where the deaths at the Herman Kiefer Hospital have been reduced in a three year period from 35 per cent to 21 per cent and at the Maybury Sanatorium from 18 per cent to 10 per cent. A fair share at least of this improvement is due to the fuller use of the various methods of collapse therapy.

As has already been pointed out it is extremely doubtful if this work could ever have been developed without the use of X-rays and most certainly it could not be carried out in the brilliant manner as it is at present apart from the routine application of the X-ray method, which not only provides extremely accurate information for the surgeon before operation, thus enabling him to plan his operation in detail, but it also provides a constant check following operation and throughout the entire period of convalescence.

The lessons which have been learned as a result of this have been numerous and diversified. To many observers one of the most interesting has been the more complete understanding of the mediastinum and its contents. Not only have we learned much regarding the freedom with which the mediastinum may become displaced but this has proved to be a source of important diagnostic significance in a variety of conditions.

In addition there has been forthcoming confirmation during the lifetime of the patient of the accuracy of the work of Nitsch who, in 1911, described weak spots in the mediastinum based upon anatomical studies. Nitsch described two of these weak spots, one anteriorly in the position of the thymus gland, at which point he found merely a network of soft tissue like tissue-paper through which an inflated balloon could be forced with moderate pressure. The second of these weak spots he describes as being in the lower posterior part of the mediastinum.

We have had the opportunity of observing examples of the first variety but up to the present have not seen the second, although it must be moderately common in

studies with the fluoroscope during artificial pneumothorax.

When such a herniation occurs it appears on the *opposite side* to the pneumothorax, bulging through the weak space above referred to, and can be seen easily during inspiration, diminishing during expiration. Those which we have observed arise from a broad base and have presented a moderate bulge. The characteristic features are the contraction and expansion coincident with respiration.

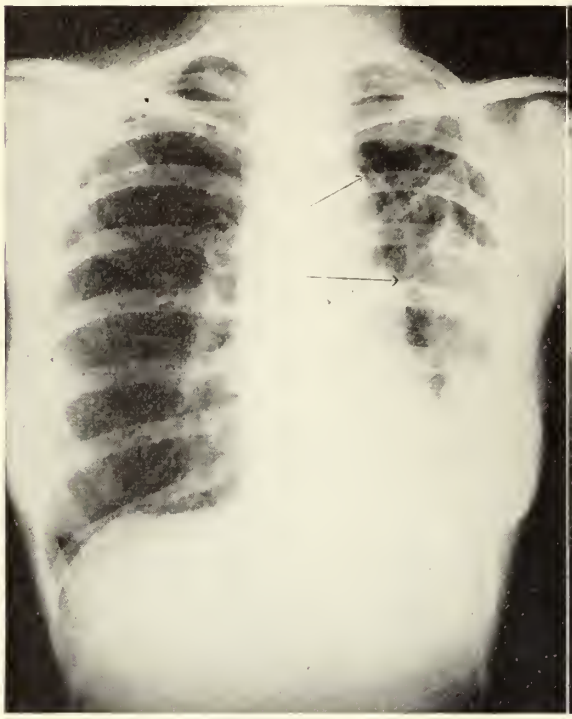


Fig. 2—26,016—Full inspiration. Herniation through mediastinum as indicated by arrows.

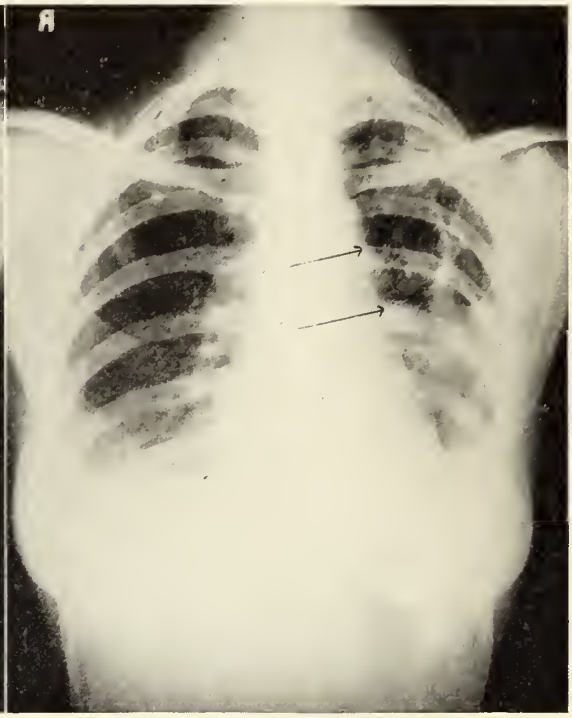


Fig. 3—26,016—Previous case during expiration. Herniation has disappeared. On fluoroscopic examination this herniation could be seen fluctuating with respiration as illustrated.

One especially interesting case is a herniation *towards* the side of the pneumothorax leaving some speculation as to the mechanism by which it is produced. On fluoroscopic observation this area fluctuates with respiration and may be studied with the greatest ease. Films are shown here during full inspiration and full expiration but on account of some fluid in the pleural cavity are not so clear as one might hope (Figs. 2 and 3).

It is a matter of great interest to observe that in a single paper in 1911 Nitsch described these weak spots though he did not actually observe the phenomenon of herniation as we are now able to do and he also described certain triangular shaped areas which he called paravertebral triangular areas. One gathers from his paper that these had been under discussion as far back as 1878. Most of us have had more or less difficulty with them in X-ray interpretation, and have usually regarded them as areas of pleural thickening or localized effusions. With the introduction of the use of lipiodol the nature of these triangular shadows has become established and we now know they are areas of atelectasis associated with bronchiectasis and are not tuberculous. The collapsed lung comes to occupy an astonishingly small space in the base and is always an entire lobe. Its collapse is compensated for by a remarkable expansion and rotation of the remaining portion of lung. The observations have been confirmed by lipiodol, verified at operation and produced experimentally in animals (dogs) and the finding of such a shadow may now be taken as pathognomonic evidence that the disease is bronchiectasis (Figs. 4 and 5).

Other lesions which have resulted from the use of X-rays during the many aspects of the surgical treatment of tuberculosis have been numerous. Prominent among

these have been an understanding of cavity formation hitherto impossible. The control of cavity formation and hemorrhage, which is possible by the means now available, is so perfect as to be described as a specific form of therapy. You have recently had this subject fully dealt with by Dr. Evans in his paper before the Detroit Academy of Medicine (April 25, 1932), and there is nothing to be gained by repeating this phase of the subject. In some Sanatoria the number of patients who do not receive pneumothorax is limited only to those in whom it is physically impossible and in these it is supplemented by other means of securing collapse or rest. "The first great advance after Hippocrates that made the modern treatment of tuberculosis was the Sanatorium method; the second is the surgical collapse of lungs."

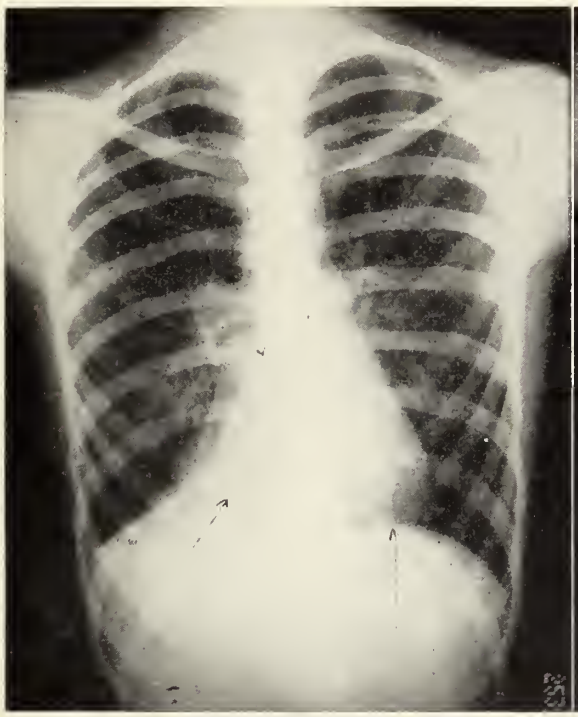


Fig. 4—253,968—Triangular basal shadows in both bases. On the right side the shadow is more clearly shown and is quite definite. On the left it is more curved and is seen through the left border of the heart.

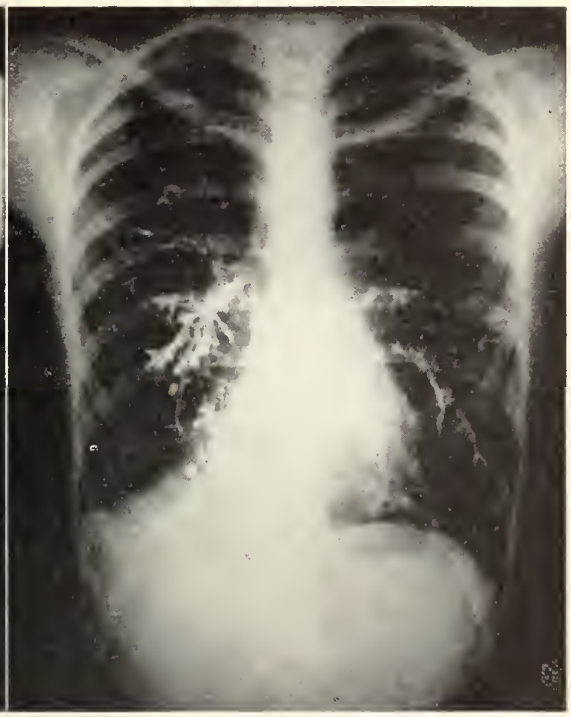


Fig. 5—254,754—Previous case following lipiodol injection. It is clearly seen that the whole of the right main bronchus terminates in bronchiectatic areas on the right side within the triangular zone. A similar condition also is present on the left side, clearly shown in illustration and in the original films.

MILIARY TUBERCULOSIS

The free use now being made of the X-ray method of studying pulmonary disease has resulted also in a new understanding of miliary tuberculosis. Most of us were taught that miliary tuberculosis was an acute disease, to be differentiated from typhoid fever, the understanding that if the disease was miliary the outcome would surely be fatal. And the profession is only very slowly coming to realize that this only describes one phase of the disease, and that in addition to being an acute disease with a very bad outlook, miliary tuberculosis may also be an extremely chronic disease and may heal completely. Here again we have to deal with a pulmonary infection providing the clinician with no help in the way of physical signs and the lesions can only be discovered by means of an X-ray study. How many periods of ill health with slight fever, subsiding in the course of a few days and dismissed by the patient or his doctor as a mild attack of the "flu" have actually been concealed tuberculous infections we have no means of knowing. But it is a fact that a close study of the histories of cases of chronic miliary tuberculosis reveals such periodic febrile attacks and these correspond to periods of activity of the disease, each of which the patient has been able to control. We have records of such cases in the films of which it is not difficult to

recognize crops of lesions of different density corresponding to different periods of activity of the disease. Such histories may go back for such long periods as to be impossible to trace until, when the patient is finally examined and the diagnosis made, the lung fields are completely filled with lesions.

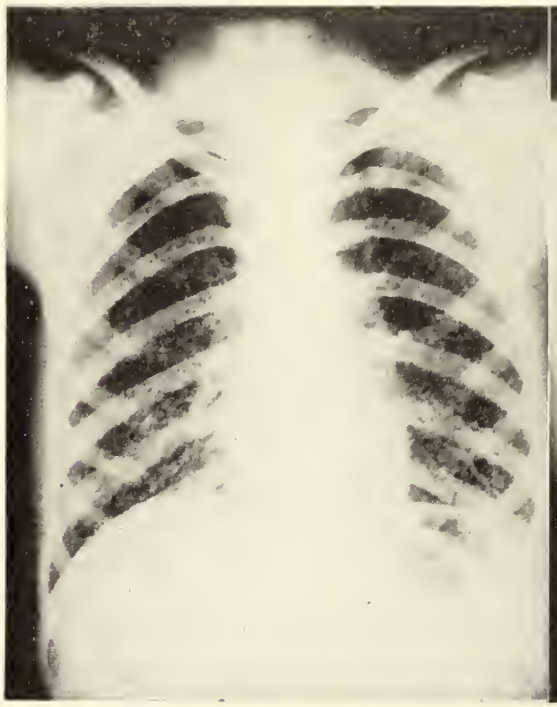


Fig. 6—240,448—Case of miliary tuberculosis referred to in the text.

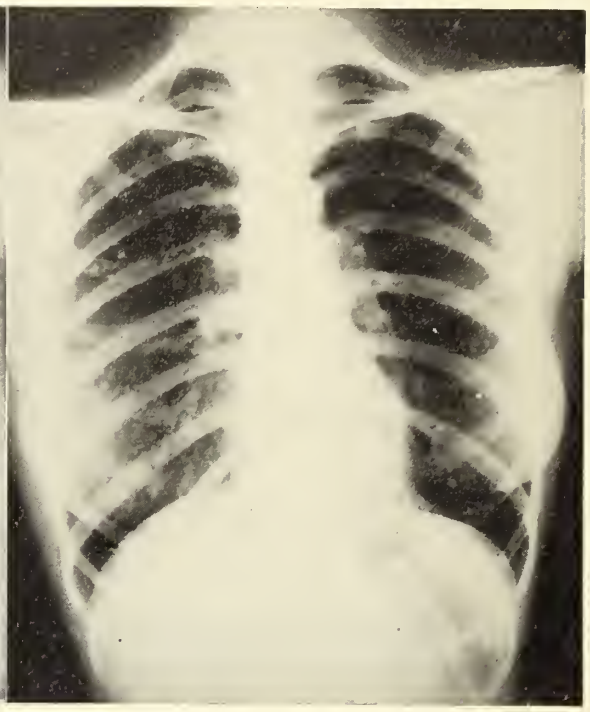


Fig. 7—133,297—Multiple discrete scattered calcific nodes regarded as a phase of miliary tuberculosis (see text).

In one such patient the outstanding symptom was anemia and the patient had been under treatment for a prolonged period simply for this anemia. The hemoglobin was sixty-five and was accompanied by fatigue and shortness of breath. One wonders to how many physicians such a symptom group would suggest the need for X-rays of the chest? However, it happened that he came into the hands of a physician who noted slight changes in percussion on both sides and referred him for X-rays of the chest. The result is shown herewith (Fig. 6) and needless to say was a surprise to all concerned. These lesions are fairly uniform in density and yet studying the original films one is convinced that they are of long duration and very probably go back through all the years of this patient's period of ill health and slowly progressing anemia.

In fact, in spite of the danger of generalizations, one feels like suggesting as a good general rule, "In anemia and fatigue in a youthful patient examine the chest for some form of tuberculous infection; in middle life or later, examine the stomach for carcinoma."

This rule was followed in a young woman who was a trained nurse, with the result shown in the next illustration (Fig. 7). Here the lesions were comparatively few and it is debatable whether or not one is justified in classifying them as miliary. Finally, some adenoids were removed, and, on section, were found to be tuberculous. Following this and suitable rest, et cetera, this patient fully recovered and has remained well.

The conclusion we have reached is that miliary tuberculosis is much more common than has hitherto been believed, and that it is frequently chronic. Because there are no physical signs, diagnosis by ordinary means is next to impossible in this stage and can only be accomplished by a wider use of X-rays as a routine means of investigation.

TUBERCULOSIS AND PREGNANCY

Finally, there is the problem of pregnancy in a tuberculous woman. When any physi-

cian is consulted as to the advisability of permitting pregnancy to occur in a tuberculous woman he assumes a serious responsibility. How can he meet this responsibility fully? The patient places her life and safety in his hands and expects from him protection. The answer, we believe, is to be found only in an extremely careful correlation of clinical tests with serial X-ray examinations of the chest over a period of at least two years. If, during two years, the lesion remains unchanged and the patient's condition otherwise indicates inactivity of the disease, pregnancy may safely be permitted. And we have no more reliable guide as to the activity of lesions than observation by X-ray studies over a prolonged period.

REFERENCES

1. Report by Detroit Health Department.
2. Report by National Tuberculosis Association, 25th Annual Meeting, 1929. Discussion, p. 282.
3. Report by National Tuberculosis Association, 25th Annual Meeting, 1929. Discussion, pp. 283-4.
4. Stewart, D. A.: What is new in tuberculosis. Canadian Med. Assoc. Jour., Jan., 1932, p. 35.
5. McPhedran, Maurice: The diagosis of latent tuberculosis. American Rev. of Tuberc., 1927, p. 479.
6. Maloney, I. C.: Study of adult tuberculosis. Amer. Rev. of Tuberc., 1929, p. 107.

THE PERIODIC HEALTH EXAMINATION
HISTORY TAKING*

C. G. JENNINGS, M.D.
DETROIT, MICHIGAN

The prevention of disease, the preservation of health, is the most exalted and enlightened function of medical science. Preventive medicine presupposes a knowledge of the etiology of disease and of the constitutional, environmental and other factors which predispose to its development.

Until the discovery of the microbic origin of the infections, which directly or indirectly are responsible for more than eighty per cent of disease mortality, a science of preventive medicine was impossible.

The last half century, corresponding to the period of beginning and growth of the knowledge of bacteriology and its related branches, has seen the development of preventive medicine from a mass of superstitions and unproven clinical theories to the positive knowledge of the present day.

The first phase of public health effort, which began about two hundred years ago and lasted almost to the beginning of the present century, was characterized by the use of sanitary authority and the powers delegated by law to the health officer of a community. Dr. Haven Emerson has termed this the "era of environmental health, the phase of sanitary authority." The quarantine of persons infected with, or exposed to the acute contagious diseases, and the abatement of palpable nuisances, were the chief activities of the public health agencies of this period.

The second era of public health work, the phase of public health education, began about 1900. We all are familiar with the activities of this period of the development of preventive medicine. Beginning with the tuberculosis campaign of 25 or 30 years ago, enthusiastic volunteer health associations specializing in various fields have brought to every individual and household the beneficent messages of tuberculosis prevention, prenatal care, infant and child welfare, venereal prophylaxis, mental hygiene, etc. One by one, as their value was demonstrated, the activities have been taken up and aided by official health agencies, foundations and philanthropic organizations. Gustave LeBon in his work on "The Psychology of Peoples" estimates that the propagation of a worth-while idea requires at least twenty-five years.

A study of the mortality statistics and the incidence of the preventable diseases show most impressively the results of this quarter century of health education. Using approximate figures, the general death rate in the U. S. Registration Area has declined from 20 to 10 per thousand in this thirty years of health education. Life expectancy at birth in the State of Massachusetts increased from 43 to 58 years. In the last fifteen years infant mortality dropped from

*See Editorial, page 116.

100 to 65; the death rate from tuberculosis in the thirty years from 200 to 100 per 100,000 population; diphtheria from 40 to 10; typhoid fever from 40 to 5; diarrheal diseases from 110 to 25. Other acute infections show comparable reductions. Pneumonia and the streptococcus infections among the acute diseases have shown resistance to preventive and curative measures alike.

Such are the results of the era of health education and the exercise of the authority of boards of health in the field of the preventable infectious diseases.

While medical science can congratulate itself on these achievements, there is a dark side to the picture. This dark side is that the health education of the last thirty years, even with the aid of sanitary authority, has failed to check the incidence and death rate of the diseases of the declining period of life.

The death rate of diabetes has increased from 10 to 18 per 100,000 population; cancer from 65 to 85. Cardiovascular diseases have replaced tuberculosis at the head of mortality statistics.

Life insurance experience tells us that while life expectancy at birth has rapidly lengthened in the last thirty years, life expectancy at the age of 40 or 50 years has not increased.

Diabetes, cancer, and the cardiovascular diseases are common to the middle period of life. It may be that the increased incidence of these diseases is due in part to the fact that more people live to reach middle life. The life extension efforts of the last generation have saved the young from the acute infections only to have them succumb to the chronic infections and degenerations of middle age.

It, therefore, seems apparent that the mass instruction and public health efforts of the era of health education are inadequate to prevent the diseases that shorten the declining years of life.

The diseases of later life, aside from the acute infections, have their origin in the constitutional tendencies, personal traits and habits and environmental influences of individuals. Mass teaching of personal hygiene makes little impression upon the mode of life of the average person. To those looking for guidance in health matters the selection, from the multitude of generalities put out by health agencies, of specific information for immediate use and adapted to the age and conditions of life of the particular individual is difficult, almost impossible. Health teaching designed to correct bad habits of living, overcome constitutional and temperamental tendencies and give protection from the preventable diseases that menace every period of life, must be personal, practical and adapted to the circumstances of the moment.

Such instruction and advice can be given only directly by physician to patient. This is the logical conclusion that comes from these years of the study and practice of preventive medicine.

It may safely be said that this conclusion has been accepted in principle by health authorities, by physicians and by the public. We have entered upon the third phase of preventive medicine, the era of periodic health examinations.

If LeBon, previously cited, is correct in his estimate of the time required to put over a worth-while idea, about twenty more years must be devoted to the education of the public and the medical profession in this phase of preventive medicine.

The history of the development of the health examination idea is interesting. Systematic health examinations had their beginning in the medical inspection of school children in Sweden in 1832, 100 years ago. The idea gradually spread through several of the countries of Europe. It was taken up with characteristic seriousness in Germany, which country promoted the First International Congress of School Hygiene in 1904. In the United States, Boston introduced the first system of medical inspection of school children in 1894. The early school inspection in this country had for its main object the detection of the acute infections. The Detroit Board of Health adopted school inspection as a disease prevention measure in 1904, during my membership on the Board. The popularity of this action at that time may be judged by an editorial which appeared in one of the daily papers. Speaking of it, the writer said:

> "It cost the taxpayer last year $2,500 for this perfectly useless service, a service that would be ridiculous were it not an abominable and intolerable piece of impertinence."

The interest of parents in the physical well-being of their children has stimulated interest in the examination of the healthy child to promote its proper development and

to guard it from disease. Pediatric specialists have led the van in the practice of this phase of preventive medicine.

Health examinations in adults came later. In 1861 Horace Dobell delivered a series of lectures in London on "The Prevention of the Invasion and Fatality of Disease by Periodic Examinations." This early writing received little attention and no further efforts to extend the teaching were made for many years.

The systematic health examination of adults was first brought forward in this country by life insurance companies financially interested in the longevity of their policy holders. As early as 1893 health examinations were made by one of the New York life insurance companies. This policy has been adopted by many companies and has given to medical science a great mass of statistical information of standards of healthy structure and function. The subject began to attract general attention in the early years of this century. George M. Gould in 1900 wrote of it in the Journal of the American Medical Association, and a gradually increasing literature has educated the public to some degree of appreciation of the value of the periodic health examination.

The well known Life Extension Institute of New York was organized in 1913 and has been a potent influence in the propagation of the idea.

The health examinations of employes has become a fixture in many industrial organizations, as well as of students in colleges.

The medical profession has been slow to grasp the meaning of the revolutionary changes in medical practice that have resulted from the work of public health agencies. Absorbed in the work of curative medicine, family practitioners, who make up the great mass of the profession, have neglected seriously to consider what should be their most important function—the preservation of individual health. As a rule patients are seen only in the emergency of developed disease.

Commercial organizations, so-called life extension companies, taking advantage of this neglect and of a growing demand for such service, have exploited an activity that should be the sole prerogative of the medical profession.

Leaders of organized medicine, however, have been alive to the situation and by educational campaigns are arousing in the profession at large an interest in its opportunity and its duty. The American Medical Association, State and County Societies and other medical bodies in various parts of the country have urged their members, in the public and their own interest, to foster the plan and prepare themselves to carry its message to their communities.

Of unusual interest was the intensive campaign of the Greater New York Committee on Health Examination extending from October 15 to December 31, 1929. Unfortunately, economic conditions since that time have not been favorable to indulgence in what may be considered by many as a medical luxury.

Granting the development of a popular demand for periodic health examinations, who shall make the examination? Will the movement only add another to the medical specialties, still further to encroach upon the field of effort of the family physician? The answer rests with the family physician himself. He is the man most capable to fulfill this function. He has, or should have, the intimate knowledge of the family and constitutional history and of the medical and environmental facts that are necessary to make a proper evaluation of the physical status of his patients and to guide them in ways for the maintenance of health and the avoidance of disease.

The question is, will he do it, or will he, by neglect or half hearted measures, drive his patients into the hands of those who are no more competent, but will take the matter seriously and give the time and attention necessary for the assurance which such an examination should give?

There is nothing in a health examination that a physician competent to practice curative medicine is not qualified to give. It differs in some ways from the examination for established and recognized disease. It is a search for the evidence of pathological tendencies and for unsuspected incipient departures from the normal. It demands a complete medical life history and a painstaking physical examination.

If the family practitioner neglects to cultivate this new field of usefulness, he will lose the opportunity of re-establishing his position as confidential family medical adviser, and of replacing with individual preventive medicine the clientele that has been

lost to him through the encroachment of specialists upon his proper functions and the reduction of preventable disease by public health activities.

I have been asked to consider the subject of history taking in the health examination. From a fairly extensive observation, I am convinced that the importance of a full and accurate history as an aid to diagnosis is not appreciated by many physicians. Too much dependence is placed upon the search for the palpable evidence of disease by physical examination. The preclinical events, the history of onset and progress often will settle the diagnosis of a developed case, which will defy differentiation by physical examination alone. In many cases diagnosis may be made from the clinical history alone. Physical examination is but confirmatory.

Of still greater importance is the medical history in the search for bad habits and conditions of life, pathological tendencies and unsuspected disease in the subject of a health examination.

The detection of disease tendencies and the earliest clinical evidence of disturbed structure and function should be the special function of the family practitioner. As Sir James MacKenzie pointed out some years ago, the study of the beginnings of disease is a neglected field. Teachers of medicine rarely see disease in its incipiency. Hospital, clinic and consultation patients give them little opportunity to observe the slight departures from normal that sooner or later may lead to established disease. The student receives no instruction in this field of clinical medicine. In our present curriculum this subject is left for post-graduate self instruction. The periodic health examination gives the practitioner opportunity for such instruction and for research in a most important and a neglected field of clinical medicine.

The physician undertaking this work must give it careful thought and study, and extend his technical methods beyond those necessary to recognize manifest disease. The cultivation of the habit of taking and accurately recording medical histories will make him a better practitioner.

The medical history of a child is relatively easy to obtain. Medical and surgical incidents are few and recent, and the details of illness are readily obtainable from the parents. Constitutional tendencies are revealed in the parents and a better history of remote family characteristics still are remembered. Home and school habits and environment are easy to investigate. Occupational influences and fixed bad personal habits have not yet complicated the picture.

The medical history of an adult, previously unknown, is more difficult. Remote family history and the details of past diseases have been forgotten. Some may be concealed. The examiner may even meet with resentment for his close questioning. A long, tactful chat with the patient is usually necessary to bring out a full history.

Patients often are unmindful of minor but significant symptoms.

The patient's history should be taken systematically and properly recorded. Health examination forms greatly facilitate this work.

Several forms differing in detail have been developed by various organizations—the American Medical Association, the United States Public Health Service, the Greater New York Committee. The form compiled and adopted by the Public Health Committee of the Wayne County Medical Society has many points of excellence and can be highly recommended. The time consuming questioning of the patient can be simplified by having him fill out the blank at his lesure. This may be checked up and amplified by the examiner at the time of the physical examination.

A full inquiry into the family history and constitutional tendencies of the patient should be made. The older physicians with their scant knowledge of disease studied the patient; the modern physician has studied the disease. Individual preventive medicine demands a knowledge of the morphological, functional and psychological characteristics of the patient; in other words, of his constitution. The periodic health examination will prove a stimulus to the study of this neglected field.

The history examination may be conveniently made in the following order:

Family Diseases

Longevity
Paternal or maternal pattern
Tuberculosis
Cancer
Cardiovascular disease
Vascular accidents—cerebral, cardiac
Hypertension
Metabolic diseases—gout, diabetes, obesity
Anemias
Insanity
Epilepsy

Neuroses
Endocrine disorders
Allergic conditions
Addictions

Environmental Conditions

Home conditions and influences.
Occupational conditions.
Hours of work. Character, nightwork, overtime.

Previous History

Diseases of early life—living conditions, school life.
Infectious diseases.
Vaccination and immunization.
Other diseases.
Accidents—surgical operations.

Habits

Food, general character and quality.
Eating habits.
Recreation.
Baths.
Exercise.
Tobacco.
Alcohol.
Tea, coffee.

Present Condition

Head

Mouth hygiene
Teeth
Pharynx and Tonsils
Sinuses
Cough
Pharyngeal and Nasal Secretions
Eyes
Ears

Chest

Cough and Expectoration
Shortness of Breath
Asthma
Palpitation
Pain—thoracic, precordial

Abdomen

Appetite, digestion
Pain—colic
Flatulence, acidity, eructations
Nausea, vomiting
Bowel action
Gall Bladder—jaundice, pain, tenderness, indigestion
Rectal symptoms—pain, bleeding hemorrhoids

Genito-Urinary System

Urinary symptoms, frequency, etc.
Pain
Menstrual history—Obstetrical history
Marital relations
Venereal diseases

Nervous System

Headache
Neuralgias
Paresthesia
Vertigo
Fatigue
Sensitiveness to heat and cold

Bones—Joints—Muscles

Arthritis
Fibrositis, myosytis

Endocrine System

Dysfunction

The importance of chronic focal infections in the etiology of the diseases of middle and later life cannot be emphasized too strongly. Careful search for the remote and apparently unimportant symptoms of focal infections should be made. The unmasking of an abscessed tooth, buried infected tonsils or other atria of absorption may prevent the development of a crippling arthritis, a life shortening cardiovascular degeneration, a chronic nephritis or some other serious disease.

The data obtained by the history will point to the fields for special investigation by physical examination, and by laboratory and X-ray studies.

GRIPPAL INFECTIONS: POSTFEBRILE CARDIOVASCULAR DISTURBANCES, USUALLY UNRECOGNIZED

In the opinion of Clarence L. Andrews, Atlantic City, N. J., grip is regarded by many physicians as a systemic cold, and patients are allowed to get up much too soon. Unless outspoken murmurs are present, heart enlargement is demonstrable, edema persists, or changes in the electrocardiogram are found, the heart is pronounced normal. Myocardial weakness is the most common of heart defects and organic leaks of the valves are the most rare. Even the mild forms of grip offer potential possibilities of myocardial disease and show evidences of lingering infection in the body tissues. The most effective treatment that the author has found consists of rest and tonic doses of digitalis and nux vomica (not with the idea of digitalization) to tone up the heart muscle and vasomotor system.—*Journal A. M. A.*

JAMAICA GINGER PARALYSIS

The autopsy reports of three patients with jamaica ginger paralysis dying of other causes are presented by RAYMOND H. GOODALE and MARGARET B. HUMPHREYS, Worcester, Mass. (*Journal A. M. A.*, Jan. 3, 1931). A study of the nerves shows an acute inflammation of one segment of the cauda equina in one case, and myelin sheath and axis cylinder degeneration of the radial, sciatic external popliteal, anterior tibial and posterior tibial nerves in all three cases. The degeneration is found as high as the gluteal fold in the sciatic nerve but not in the anterior roots of the lumbar cord. These observations are consistent with the observations in a follow-up clinic in which it was found that all patients showed marked improvement of wrist and finger motion and little or no improvement of foot motion from five to six months after the onset of paralysis.

THE ROUTINE PHYSICAL EXAMINATION

HUGO A. FREUND, A.B., M.D.
DETROIT, MICHIGAN

The term "Physical Examination" implies an objective survey of the human body and its functions. The thoroughness with which a physical examination is done depends upon three factors: (1) the expertness of the examining physician; (2) the uniformity of his technic; (3) the material and facilities for carrying out essential tests.

No physical examination should be partial or incomplete. By this I mean that every system of the body should be included in order that either directly or indirectly each organ and function may be brought under the scrutiny of the examining physician. This makes it possible where abnormal states are not superficially apparent to discover "leads" or "clues" suggesting important underlying conditions. Though the personal equation may enter into the results, the examiner, by the development of a routine technic, can minimize the errors that may creep into a physical examination. Above all, the physician must never allow the patient's history to affect the accuracy of his objective findings. His impressions, diagnosis and ultimate judgment should rest upon the proper evaluation of history, physical examination and laboratory information. The complete physical examination is meant to include all the findings acquired by personal investigation, instrumental measurements and laboratory findings. The first of these must be systematic and uniform; the latter two should be carried out with care and trustworthy precision. The armamentarium of the physician for performing a complete physical examination requires, first of all, that he understand the fundamentals of Inspection, Palpation, Percussion and Auscultation. In other words, he must be able to use his own special senses to recognize and record the physical signs in the subject before him. He may or may not make his own observation of height, weight, and circumference; and he may or may not carry out some of the laboratory procedures; but he alone is responsible to the client and to himself for the accuracy with which he makes the physical examination and for the proper evaluation and emphasis that he places upon the findings.

Let me repeat again the fundamental methods necessary to be remembered and carried out routinely and precisely in every examination: Inspection, Palpation, Percussion and Auscultation. With these in mind let us proceed to examine our patient. First of all, the subject should be stripped, lying on a comfortable table, the chest covered with a towel and a sheet over the entire remainder of the body. The room should be lighted by daylight only and the patient's feet should be toward the window. Preliminary inspection is made of his expression, color, skin, nutrition, musculature, hair, nails, superficial markings and general appearance. Now the examiner proceeds with the more intimate inspection of the eyes, noting the position the sclera, the conjunctivæ and the pupils with regard to their reaction to light and accommodation. Extra-ocular muscle movements are also quickly noted.

The nose is next examined. By means of a flash-light one may occasionally with direct and indirect illumination detect deviations in the septum or other changes obstructing the nares. Important discharge, bleeding surfaces and even perforations may be seen without resorting to the use of reflected light. It is well, however, to use a head-mirror or make, when possible, a dark room examination, especially for sinus transillumination.

The organs of hearing are next examined. A watch tick whose loudness is known is tried at either ear; with an otoscope the canal and drum are inspected. The oral cavity requires careful scrutiny. The condition of the lips and buccal mucous membranes is observed. The teeth are examined for occlusion, general caries, pyorrhea, devitalized roots. Next, the palatal arch is noted and then the soft palate and tonsils. The pharyngeal reflex can always be tested quickly while examining the pharynx. Be-

fore leaving the oral cavity one looks at the tongue—that deceptive talisman of so many conditions: One must be careful not to ascribe too much meaning to its appearance.

We now come to the neck and *inspect* it for changes in the thyroid gland, enlargement of lymphatics and pulsations in the great vessels. Here we make use at the same time of palpation to detect changes and to supplement inspection.

In the thorax we have three important structures to examine: First, the breasts. We look for scars, irregularities, discharges, retracted nipples, and confirm the presence of any findings by careful *palpation.* This should be done in the female both in the sitting and recumbent positions. Transillumination is often of value in the suspected cases. This may be carried out with a strong flash-light. The thorax is examined for symmetry, pulsation, equality of expansion of the two sides in the supraclavicular, infraclavicular and axillary regions. The thorax is then *palpated* for the purpose of confirming and further discovering pulsations and the character of expansion. In the process of *palpation* over the lung, friction may be felt and fremitus of the transmitted spoken voice should be compared on the two sides. Over the precordium, thrills, shocks and abnormal pulsations may be recorded. *Percussion* of the thorax must always be systematically carried out. First, the resonance is compared on the two sides in the first interspace. Next, the lung boundaries are mapped out by percussing the height of each apex, anteriorly and posteriorly; and locating the lung-liver border on the right and the lung-stomach border on the left. Then the heart borders are determined by percussing first the upper border, then the right edge, and, where possible, the left border of cardiac dullness. The landmarks having been determined, one proceeds to *auscult,* first the lungs and then the heart. The normal vesicular murmur of respiration is compared on the two sides of the lung both anteriorly and posteriorly, and its intensity, ratio of inspiration to expiration (which averages as 3 to 1), and abnormal or adventitious sounds are listened for. Auscultation of the heart should be done routinely by listening to and noting the character of the first sound at the apex followed by the second, and tracing these sounds into the axilla and along the left border of the sternum; next, by placing the stethoscope at the second left i.c.s. and noting the pulmonary second sound, and then at the second right i.c.s. and observing the character of the aortic second sound. The transmission of heart sounds may be followed, if occasion demands, into the great vessels of the neck and even to the femorals. At this point systolic and diastolic blood pressures may be taken both in the sitting and recumbent positions. If the readings appear unusually high or low, readings in both arms should be made. The heart may be further examined by noting the pulse rate with exercise. The patient hops from 30 to 100 times, depending upon his age, and then he immediately lies down. The pulse rate at the end of two minutes should have returned to normal. During the entire examination of the circulatory system irregularities of heart beat are noted. Their significance may be determined, if necessary, by the electrocardiograph.

The abdomen is *inspected* to describe its contour, the presence of scars, of intestinal activity and of enlargements. By palpation we detect areas of tenderness, superficial or deep, the general muscle tone and the presence of muscle spasm in sensitive regions. One now proceeds to *palpate* the spleen, the liver and the kidneys, and to note the presence of other abnormal masses. It is important when the organs of the abdomen are felt to note whether they move with respiration, whether they can be held in position when they descend, and their general size and consistency. *Percussion* of the abdomen is only of value when distention is present due either to tympanites or to the presence of free fluid. It is always important to percuss from the resonant to the dull in outlining borders and regions. *Auscultation* of the abdomen is rarely of value and when used is simply done to supplement some interesting or exceptional findings. It has little diagnostic value.

Next, one *inspects* and *palpates* the inguinal regions for hernia with the patient both in the recumbent and standing posture. In the male the genitalia are examined, particular attention being given to scars and malformations about the penis. The testes are examined for masses, enlarged veins, nodules or tenderness in the cords. The examination of the prostate and seminal vesicles is then made by having the patient in the knee-chest position and with fingercot palpating these organs. The anus and rec-

tum are *inspected* and *palpated* at the same time. Proctoscopic examination shall always be made when the history suggests possible trouble higher in the rectum.

In the female the pelvis should be completely examined, attention being given in the external regions to the labiæ, the urethral orifice and the clitoris. The character of discharges is noted. Where a marital hymen is present at bimanual examination should be carried out, noting condition of the cervix, the size, position and movability of the uterus, the condition of each tube in the broad ligament, and the size and position of the ovaries, if possible. The finger may then be introduced into the rectum and its condition noted. In women who have borne children, the recto-vaginal floor should be examined. Only when absolutely indicated should the virgin pelvis be examined, and then, always, preferably by rectum.

The nervous and osseous systems may now be examined. The patient is allowed to stand up and the posture, bony prominences, joints, gait, static position and condition of the feet are noted. The patient is then seated on the edge of the examining table when the patellar and Achilles reflexes are checked. Tests to determine changes in the central nervous system, such as clonus, Babinski, muscle power and coördination tests, are made. If indicated, the abdominal reflexes are also elicited. Finally, tremors in the extended hands or under voluntary and directed motion are looked for. Should edema, varicose veins, cyanotic or pale extremities be noted, their importance is established by further tests to determine their significance.

The physical examination completed, the weight, height and temperature are taken and recorded as of the hour of the day they are made.

Supplementary to this physical examination are the laboratory tests. Routinely a complete urinalysis, the hemoglobin, and, when facilities are at hand, a complete blood count, including the differential, should be carried out. *I urge a routine Wassermann test in every patient.* Besides these examinations which the laboratory should make, indications in the particular case suggest, usually, the need for additional studies. A fluoroscopic examination of the thorax is very valuable, to determine pulmonary or cardiac conditions that may require a film for positive determination. The same may be said of an electrocardiogram in patients over 45 years of age or in those presenting signs of vascular disease. Only when indicated need a spinal puncture be considered. This applies as well to many types of special tests involving gastric and stool analyses, blood chemistry and bacteriological investigations.

COMMENTS ON NEUROLOGICAL EXAMINATION AND DIAGNOSTIC PROCEDURES*

CARL D. CAMP, M.D.†
ANN ARBOR, MICHIGAN

A neurological examination can be considered as divided into three parts or phases. The first phase is that of the examination of the physiology and the physiologic reactions of the nervous system; the so-called clinical examination. Its chief value is the discovery of any disturbance of the functional integrity of the different parts of the nervous system and, by inference, the location of any disease process if one should be present. The second phase of the neurological examination might be called the laboratory phase although most of these procedures require the presence of the patient. The third phase is the determination of the relationship of the patient's emotional state and ideas to his functional disturbances and complaints, or the psychoanalysis.

In the clinical examination of the patient the tests are chiefly tests of reflex activity, *i.e.*, the responses of a certain part of the nervous system to a stimulus from outside. By making a sufficient number of tests we can draw inferences as to the condition of almost any part of the nervous system that we wish to examine. However, it must be remembered that always the result of the

*Read before the Section of General Medicine of the Michigan State Medical Society at the Meeting in Kalamazoo, Michigan, September 13-15, 1932.

†Dr. Camp obtained his M.D. degree from the University of Pennsylvania in 1902. From 1905 to 1907 he was Instructor in Neuropathology at the University of Pennsylvania. He is now Professor of Neurology at the University of Michigan.

test is a matter of judgment. The examiner must know what result to expect normally, and then must use his judgment in recording this result. Such results constitute the data upon which the final diagnosis will be made. The accuracy of a diagnosis depends on accurate data. The accuracy of the final diagnosis of a case may be checked by the autopsy findings, but the question of accuracy of data cannot be checked and is a matter of opinion based on experience. It has seemed to me that the clinical examination of the patient was the most important and generally the most informative part of any examination, but it must be borne in mind that all the data so obtained represent the judgment of the examiner and that the chance of error based on inexperience, poor judgment or carelessness is a continuing hazard.

Not a week passes but some new "sign" is suggested, some new reflex discovered, or some method of testing coördination. Some of these are really new and valuable, but most of them are merely slight variations in method. It should be emphasized, I think, that this multiplication of signs and elaboration of methods is really not a great gain. Josh Billings said, "It's better not to know so much than to know so much that ain't so." As an illustration, suppose we take the well established Babinski sign, the extension of the great toe on plantar stimulation which is supposed to indicate involvement of the pyramidal tract. What shall we say when we find that irritation of the inner side of the sole causes extension when the foot is warm, flexion when it is cold; or extension when the knee is flexed, flexion when it is extended? All of these variations have occurred in cases under my observation. Does that indicate that the test is of no value? Certainly not. It does indicate that care and judgment are necessary in evaluating it. The same thing is necessary in any test.

The second phase of a neurological examination, that part of the examination which is made with the coöperation of laboratories, X-rays, etc., has grown greatly in importance in recent years. One of the most commonly used laboratory methods is the spinal puncture. This test, which came into common use only in the past twenty years, is now done quite routinely in hospitals and well equipped offices. In most cases a spinal puncture is a quite harmless, diagnostic procedure if done with careful aseptic precautions. I would call attention to possible contraindications. A spinal puncture is dangerous in cases of increased intracranial pressure unless it is done with great care to avoid reducing the spinal pressure suddenly. This can be done by drawing off only the minimal quantity necessary for diagnosis and taking it very slowly. A more important contraindication, to my mind, and one that is frequently neglected, is the presence of an infection either in the blood stream or in some focus near to the cranial cavity, such as, for instance, in the mastoid. Under these circumstances I have seen a lumbar puncture followed by the development of a meningitis which I feel sure would not have occurred if the infection had not, so to speak, been drawn into the central nervous system. In doing a lumbar puncture one of the first observations made is of the spinal pressure. I do not believe that the absolute pressure of spinal fluid indicated at lumbar puncture is of great importance in diagnosis. Some of the highest intracranial pressures follow simple concussion of the brain, and, on the other hand, cases of brain tumor may show a relatively low spinal pressure. The variations in pressure during the puncture are important. If the pressure, high to begin with, suddenly drops, it usually indicates a block of the spinal canal, and if this is further confirmed by an absence of a rise following compression of the jugular veins, this idea is confirmed.

In the examination of the spinal fluid obtained by puncture, many tests are used, but only a few of them, it seems to me, are of considerable importance. The cell count is always of value. The number of cells should not exceed six lymphocytes per cubic millimeter. In the case of a large number of cells as seen in meningitis, et cetera, the manner of counting and time is not of great importance, but in cases that are on the borderline the cells should be counted immediately after the puncture. If the fluid is allowed to stand, the cell count will invariably be lower than it would be if fresh, and may, therefore, appear to be within normal limits.

The amount of albumin in the spinal fluid is usually estimated by one of several tests. The test that I consider most valuable and practical is the so-called Pandy reaction. A clean test tube is filled part way with a 5 per cent solution of carbolic acid. The solution should be perfectly clear. Then a drop

of spinal fluid is allowed to fall into this solution. If the spinal fluid is normal the drop can be seen to fall through the carbolic solution but with no clouding, and it will remain water clear. If there is a bluish cloud surrounding the drop one can be sure there is some pathologic change present. In cases of spinal cord tumor, the drop of fluid seems to solidify and falls quickly to the bottom of the tube.

A test which is of considerable value, but frequently omitted in the examination of the spinal fluid, is the sugar content. Normally, spinal fluid reduces Fehling's solution. In cases of meningitis, especially acute meningitis, this reducing substance may be entirely absent. On the other hand, in encephalitis and poliomyelitis the reducing substance is usually increased.

The serology of the spinal fluid is of considerable importance. I would comment, however, in this connection on the fact that it is perfectly possible to have a syphilitic involvement of the central nervous system and still have a negative Wassermann or Kahn reaction on the spinal fluid. This is not infrequently the case in syphilitic lateral sclerosis and it is almost always the case where a syphilitic vascular disease has caused thrombotic cerebral softening. On the other hand, the Wassermann test is practically 100 per cent positive in the spinal fluid in cases of paresis and at least 75 per cent positive in cases of tabes dorsalis.

The bacteriological examination of the spinal fluid is not made by cultural methods or animal inoculation as frequently as it should be. It is especially difficult to stain the tubercle bacillus. I have seen many cases of tuberculous meningitis proved by necropsy in which it has been impossible to find the tubercle bacilli in the fluid by the regular staining methods throughout the course of the disease.

Another important test of the spinal fluid is the gold sol. On this test, I would offer the comment that a positive gold curve is frequently misinterpreted as an indication of syphilis. This is not true. There may be precipitation in the first three or four tubes in many other conditions, such as brain tumor, etc., and it is regularly true that there is a precipitation, frequently of paretic type, in cases of multiple sclerosis.

An X-ray examination of the skull is not often of much assistance in neurologic diagnosis. In children especially, an increase of the digital markings may be due to increased intracranial pressure and indicate a brain tumor. In cases where tumors are adjacent to the bone as the meningiomas, and those in or near the sella turcica, the bone deformity is often a valuable clue to the correct diagnosis. In traumatic cases the X-ray will reveal a fracture, but the mere fact of a fracture does not signify as to the neuropathology present. The most serious effects on the brain, traumatic encephalitis, subdural hemorrhage, and the like, are often unaccompanied by skull fracture.

A more valuable diagnostic procedure is the ventriculogram or the encephalogram. In the former, the fluid in the ventricles is substituted by air injected into them directly through the trephine openings. In the latter, the fluid is withdrawn by a lumbar puncture and the air is injected intraspinally. The ventriculogram is more often used when there is evidence of increased intracranial pressure and where an operation can be done immediately afterward. It is a distinctly surgical procedure and not without danger.

In injecting air for encephalogram the patient is not anesthetized. He is usually placed in a special chair with a head rest so that his head can be held steadily in certain positions while the roentgenograms are made and the whole procedure is carried out in this chair by rotating it in various positions. An important point in substituting air for fluid is to keep the pressure as even as possible. The encephalogram not only shows the location and size of the ventricles, but the air spreads over the cortex as well so that cortical atrophy, subdural growths or hemorrhages can usually be demonstrated if present.

While primarily a diagnostic measure, the encephalogram may have a favorable therapeutic effect in cases of concussion headache, traumatic encephalitis and epilepsies, especially in those due to encephalitis.

I shall not say much about electrical tests except to comment that the electric reaction of degeneration is still the most reliable way of differentiating an upper from a lower motor neuron lesion and is also the best measure of the prognosis in the latter. The test of the chronaxia of muscle and nerve, while extremely interesting, strikes

me as being too complicated and delicate to be of value in ordinary clinical work.

Finally, the third phase of the neurological examination is the psychoanalysis. It seems to me that there is considerable misunderstanding in the medical profession as to what is meant by psychoanalysis. This is to be expected. It is not taught in any medical school and you are more likely to read about it in lay rather than medical magazines. It should be understood that a real analysis of the patient's subconscious mind does not mean a new philosophy or a cult of sex, although one might think so from reading some popular articles and books on the subject. Primarily, it is also not a method of treatment. Treatment may be based on a psychoanalysis just as a vaccine treatment might be based on a bacteriological analysis. I might point out also that the psychiatric examination is entirely different from the psychoanalysis since the former deals with a study of the disturbances in conduct, thought and feeling, whereas the latter is an investigation to determine the presence or absence of mental conflicts in the subconscious in patients who may be normal in conduct and logical in thought, but who complain of feelings or psychological reactions that may be explained by those conflicts. It is not in my province to dwell on the importance of the mental factor in medicine. Many authors have dwelt on this recently in papers on arthritis, gastric ulcer, hypertension, hyperthyroidism, and other conditions, but they mostly overlook the fact that there is a subconscious. Merely questioning the patient cannot be expected to elicit facts from the subconscious unless the examiner is extremely clever in drawing inferences and since these inferences will usually be denied by the patient, the essential facts are not brought to the surface by any amount of cross examination. There are many difficulties in the way of a psychoanalysis and different investigators may prefer different methods, such as free association, reaction time tests, analysis of dreams, etc., but they all require considerable time and the cooperation of the patient. The point of greatest importance is adherence to a careful technic which, to be free of error, must be as rigid as a bacteriological technic.

EMBOLISM OF THE PULMONARY ARTERY

TWO CASE REPORTS*

GEORGE G. RIECKHOFF, M.D.,† and VINCENT J. TURCOTTE, M.D.‡
DETROIT, MICHIGAN

Case 1.—Mrs. M. N. entered the hospital on March 20, 1932, complaining of repeated attacks of pain in the right side accompanied with nausea and vomiting. Physical examination revealed an acute appendix, slight enlargement of the thyroid, mitral insufficiency and varicose veins of both legs.

The appendix was removed on March 21, 1932. The report on the specimen removed was subacute appendicitis with a small area of peritonitis. Recovery was uneventful until the fifth day when she complained of pain on the medial aspect of her left thigh. On examination, the saphenous vein was found to be enlarged and tender midway between the knee and the groin. There was a slight elevation in temperature and pulse rate. The limb was immobilized with a splint and an ice bag was placed over the area of tenderness. By the eleventh day, all pain and swelling had subsided and the vein seemed normal.

On the afternoon of the eleventh day when attempting to get out of bed for the first time, she was seized with a sharp pain in the region of the heart, great difficulty in breathing and fell back into bed in a semi-comatose state. Examination at this time found her cyanotic, pulse rapid and weak. A loud systolic murmur was heard above all heart sounds.

An ice bag was placed over the precordium and morphine and digalen were given hypodermically. Her condition gradually improved. The pain became less, the heart rate became slower and the intensity of the heart tones stronger.

The day following the attack she developed a slight cough and noticed a sharp pain on inspiration in the lower part of the right chest. Examination revealed no râles or areas of consolidation. Within a week all symptoms subsided. She felt quite well and was allowed to leave the hospital. She has been well ever since.

Although not proven by X-ray or necropsy, the sequence of events undoubtedly prove a thrombus of the saphenous vein with embolism of the pulmonary artery, and

*These cases were presented in both staff meetings and clinical pathological conferences at St. Mary's Hospital, Detroit, Michigan, on October 11, 1932, and October 25, 1932, respectively.

†George G. Rieckhoff, M.D., 14905 East Jefferson Avenue, Detroit, Mich., a graduate of Marquette University, 1916, is Associate in Gynecology, St. Mary's Hospital, Detroit.

‡Vincent J. Turcotte, M.D., 14196 East Seven Mile Road, Detroit, Mich., a graduate of University of Michigan, 1925, is Attending Obstetrician and Gynecologist, St. Mary's Hospital, Detroit.

finally, infarct in the lower lobe of the right lung.

Every year many articles appear in the world's literature on embolism of the pulmonary artery. Among the most interesting of the late articles has been one by Walters of the Mayo Clinic listing 267 fatal cases in 63,000 major operations. He believed the routine use of thyroid extract reduces the incidence. Hosoi found 64 cases proven at autopsy in 62,000 admissions to the Albany, New York, Hospital. Bagley and Smith listed nine cases, with one confirmed by autopsy, in the orthopedic service at the Henry Ford Hospital. It is generally believed that the occurrence of pulmonary embolism varies from 1 in 1,000 to 1 in 500 major operations by the different observers.

Predisposing causes are cardio-vascular pathology, slowing of the blood stream, increased blood clotting time, decreased blood volume, lowered metabolic rate, trauma, and infection. The time of the occurrence is usually between the end of the first to the third post-operative week. It seems to occur in those who have made the best and most uneventful recovery.

Usually a few days before the thrombophlebitis is definitely defined, there will be a slight elevation in temperature and pulse rate. When once seen, the symptoms will never be forgotten. When sitting up for the first time or getting out of bed, the patient will be seized with severe pains in the region of the heart, dyspnea, loss of consciousness, weak and rapid pulse with a loud systolic murmur in the cardiac region, cyanosis and death in a few minutes or hours.

While the articles in this country go into great detail in discussing the incidence, predisposing causes, mortality rates and preventive measures, nothing has been mentioned of the active treatment when once an attack has occurred. For this we have to turn to the European literature. Trendelenburg was the first to operate and remove a pulmonary embolus in 1908. The first successful case that made a permanent recovery was in 1924. To date, there have been sixteen cases operated upon and survived operations with six permanent recoveries. This is not a bad percentage when we take into consideration that only those cases were operated where death seemed inevitable. Nystrom of Sweden reported five operated cases with two permanent recoveries. Usually death is so sudden that nothing can be done and it is a matter of good fortune when any one is near in the emergency.

We are reporting this case because it indicates the importance of sclerosing all varicosities of the legs. If we had treated this case as recommended by Homans and Stone, who advocate tying off the saphenous vein above any thrombus formation, we feel certain it would have saved this person much suffering and ourselves many anxious moments.

The second case which we are reporting is one in which the thrombus was primarily located in the pulmonary artery. It is as follows:

Case 2.—J. S., aged seventy-six, plastering contractor by occupation, retired, entered the hospital May 11, 1932, in coma. We saw him at 2:00 A. M. the same morning as he entered. His relatives claim that the patient was in perfect health until about three months previous to his admission, when he suddenly became comatose and was unconscious for a period of forty-eight hours. He recovered spontaneously with seemingly no residual with the exception of slight memory disturbances and was apparently in good health until the second attack. Past history, as to symptoms, is essentially negative.

Examination on admission revealed an elderly white adult male lying in bed in coma and very restless. He voids involuntarily. Skin: Good texture, no cyanosis or edema. Head: Shows no injury, deformity or areas of tenderness. Face: Appears to be somewhat drawn to the right, although this was questionable. Pupils: Contracted, equal and regular. React to light. Ears: No discharge or obstruction. Canal and drum membrane normal in appearance. Mouth: No congestion of pharynx or palate. Tonsils intact. Remaining teeth in fair condition. Chest: Expansion bilaterally equal. Lung fields clear. No fluids, râles or areas of consolidation. Heart: Borders within normal limits. Tones of good quality. No murmurs heard. Abdomen: Level of the costal margin. Soft. No tumor masses palpable. Liver, spleen and kidneys not palpated. Abdominal reflexes present equal and active. Extremities: Biceps, triceps and patellar reflexes present equal and active. Negative Babinski. Blood pressure 150/90.

Laboratory Findings: Blood, 80 per cent hemoglobin; Index 1; R. B. C. 4,000,000; W. B. C. 12,200; 79 per cent polys.; 20 per cent lymphs.; 1 per cent endo. No pathological cells. Blood N. P. N. 43; blood sugar 160. *Urinalyses:* Amber in color, cloudy, acid in reaction, Sp. Gr. 1.018, Albumin one plus. Sugar: Slight reaction. Occasional red blood cell. Repeated urinalyses were essentially the same. *Temperature* on admission was 100.6 (ax.); pulse 136 and respirations 34. The temperature thereafter raised from 100.6 (oral) to normal at its height in the afternoon. *Respirations* on admission were of the Chene-Stokes type. Kahn precipitin test negative.

Progess: May 12, 1932: Slightly improved. Has had several lucid intervals, orientated as to time and place. Still voids involuntarily and relapses into stupor. Blood pressure 140/65. May 15, 1932: Some congestion in both lungs. Blood pressure 120/65. May 15, 1932: Pulmonary congestion considerably increased. May 18, 1932: Patient cyanotic and dyspneic. Both lung bases considerably congested. Large moist râles throughout both lung fields. Patient seems much weaker. May 19, 1932: Seems

considerably weaker. Cyanotic, breathing difficult, pulse 48. May 20, 1932: Lungs very much congested. Large moist râles throughout lung fields. Patient in coma. Expired at 10:00 A. M.

AUTOPSY REPORT

General Description: A well developed and fairly nourished white, aged male. Shows no external lesions.

Cranial Cavity and Contents: Dura adherent firmly to cranial bones. No excess of subarachnoid fluid. No prominent cerebral arteriosclerosis. No evidence of old or recent hemorrhage and no areas of thrombosis, embolism or cerebral softening.

Fig. 1. Case 2. Pre-agonal pulmonary thrombus. Complete cast in both lungs removed at autopsy.

Thoracic Cavity and Contents: Both *lungs* moderatcly emphysematous anteriorly. Both upper lobes contained small scars of healed tuberculosis. Both lungs show dorsal hypostatic congestion, hypostatic pneumonia and the lower right lobe has a sharply defined area of lobular consolidation of pneumonia character. All the bronchial tubes on the left side contain mucopurulent exudate. The *pericardial sac* is normal; it contains no excess of fluid. The *heart* is slightly hypertrophied. The first portion of the left *coronary artery* is sclerotic and partially calcified. Very slight sclerosis of the smaller coronary arteries. No area of cardiac thrombosis, softening or fibrosis. No lesions in the interventricular septum. All valves normal. No area of mural thrombosis. The pulmonary artery contains a firm, well moulded thrombus which ramified through the primary and secondary branches. A similar thrombus is present in the aorta.

Abdominal Cavity and Contents: Stomach: Small, no lesions present. Slight atrophy of the gastric mucosa. *Duodenum* is normal. *Pancreas* shows slight atrophy and fatty infiltration. *Spleen* is small. *Liver* is slightly diminished in size. No degeneration or cirrhosis. *Gall bladder* and *bile ducts* are normal. *Small intestine* is normal. Multiple acquired diverticulosis of the *descending colon. Adrenals* grossly normal. *Right kidney* slightly smaller than the left and shows slight congestion of the pelvic mucosa. No sclerosis, vascular or organic. No infarcts. No evidence of nephritis or nephrosis. *Ureters* normal. *Urinary bladder* normal. *Prostate* not enlarged. A few areas of sclerosis of the lower aorta and right iliac artery.

Diagnosis: Pulmonary and aortic thrombosis. Terminal hypostatic pneumonia. Diverticulosis of the lower colon.

There is no doubt that this man died of a hypostatic pneumonia. Both physical findings and autopsy findings were quite in accord with this diagnosis. The interesting part of the case is the thrombus with its ramifying branches into the primary and secondary divisions of the pulmonary artery. It was definitely organized and there is no doubt that it was a pre-agonal formation.

In regard to the etiology of these periodic seizures of unconsciousness, we have not come to anything definitely conclusive. There is evidence of some toxic agent being present because of the slight changes found in both the N. P. N. and blood sugar. He responded quite well in the beginning to infusions of glucose and saline and up until the time pneumonic signs and symptoms developed he seemed to be recovering nicely.

BIBLIOGRAPHY

Bagley and Smith: Infarction and embolism. Jour. A. M. A., 98:467, Feb. 6, 1932.

Bancroft and Brown: Postoperative embolism. Surg., Gynec. and Obst., 54:898-906, June, 1932.

Hosoi, K.: Pulmonary embolism and infarction. Ann. Surg., 95:67-92, Jan., 1932.

Kirklin, B. R., and Faust, Louis S.: A clinical and roentgenologic consideration of pulmonary infarction. Am. Jour. Roent., 1930.

Nystrom, G.: Experiences with the Trendelenburg operation. Trans. Amer. Surg. Asso., 48:18-52, 1930.

Walters, Waltman: A method of reducing the incidence of fatal post-operative pulmonary embolism, result of its use in 4,500 surgical cases. Surg., Gynec. and Obst., 1:154-159, 1930.

Westerborn, A.: Trendelenburg's operation, recent cases. Ann. Surg., 93:816-818, April, 1931.

Stone, Harvey B.: Surgical treatment of postoperative saphenous thrombophlebitis. Ann. Surg., 46:683-686, October, 1932.

SO-CALLED ESSENTIAL UTERINE BLEEDING*

NORMAN R. KRETZSCHMAR, M.S., M.D.†
ANN ARBOR, MICHIGAN

For years the terms essential or idiopathic uterine bleeding have been applied in cases where no gross local or general disease exists to account for the symptom. The condition is very common and occurs in women at all ages, but is most frequently observed at the extremes of menstrual life. The bleeding may vary from a slight increase in flow at the time of the regular period to severe bleeding at any time during the menstrual or intermenstrual period. The onset is usually gradual, later becoming profuse.

As shown by Cullen,[1] Shroder,[2] Novak,[3] Fluhman,[4] and others the symptom in most cases is associated with glandular hyperplasia of the endometrium. This is characterized by a hyperplasia of both the stromal and glandular elements, sometimes presenting a distinctly polypoid appearance. The glands may show marked cystic dilatations, the "Swiss cheese hyperplasia" of Novak. The actual bleeding is thought to occur as a result of localized areas of necrosis with patchy sloughing of the endometrium. Recent investigations suggest that grandular hyperplasia is the result of a disordered ovarian function,[5] a point to be considered in evaluating data here given.

The purpose of this paper is to present certain data gleaned from study of a limited group of patients suffering from menorrhagia and metrorrhagia. Special emphasis being placed on the relationship of glandular dyscrasia (hypothyroidism) as a possible etiologic factor.

In this series the records of seventy patients all under the age of twenty-five were examined. These patients entered the hospital with a chief complaint of excessive bleeding and in no instance was there any gross evidence of pathologic changes in the pelvic organs. All of these patients were well developed. None were classified as emaciated and only three were overweight. Abnormal uterine bleeding associated occasionally with weakness and lassitude were the only recorded complaints.

BLOOD EXAMINATION

Examination of the blood revealed a wide variation in findings.

The clotting time, bleeding time and differential counts were within normal limits.

TABLE I

	High	Low	Average
Hemoglobin	90%	14%	65%
Red blood cells	5,880,000	1,920,000	3,880,000
White blood cells	11,150	4,500	7,800

BASAL METABOLISM

Forty-three of the seventy patients had a basal metabolic rate determination. The negative rates totaled 37 or 86 per cent and the positive rates 6 or 13.9 per cent. Many of the negative rates were within the generally considered lower limit of normal or minus 16 per cent. The average negative rate was minus 11.4 per cent.

MICROSCOPIC EXAMINATION OF ENDOMETRIUM

Thirty-six of the seventy had a dilatation and curettage and the microscopic findings were as follows:

TABLE II

	Number	Per cent
Glandular hyperplasia	22	61.1
Curettings negative	10	27.7
Atrophic endometrium	2	5.5
Chronic endometritis	2	5.5

In many of the patients in the latter part of this series curettage was omitted as a diagnostic procedure but there were twenty who had both a metabolic rate determination and curettage. Correlating these we find:

TABLE III

	Number	Per cent
Glandular hyperplasia associated with a minus B. M. R. in	16	80
Glandular hyperplasia associated with a plus B. M. R. in	1	5
Atrophic endometrium associated with a minus B. M. R. in	2	10
Chronic endometritis associated with a minus B. M. R. in	1	5

TREATMENT

The usual treatment in patients presenting a metabolic rate below zero consisted of

*Read before the Section of Obstetrics and Gynecology, Michigan State Medical Society Meeting, Pontiac, Michigan, September 23, 1931.

†Dr. Kretzschmar is Assistant Professor of Obstetrics and Gynecology, University of Michigan.

the administration of thyroid extract (desiccated whole gland). This was given in sufficient quantity to raise the metabolic reading slightly above zero. The amount was then decreased to a maintenance dose, usually one-half grain two or three times daily. The average length of time that patients with this form of treatment were followed has been seven and one-half months. The total number of patients treated was twenty-three, and the results as determined by re-examination and questionnaire were as follows:

TABLE IV

	Number	Per cent
Bleeding stopped or normal	16	69.5
Bleeding decreased	1	4.34
No improvement	4	17.3
No subsequent history obtainable	2	8.6
Total number of patients cured or improved	17	73.9

Eighteen patients were treated by curettage alone. Ten of these answered the questionnaire and only four, or 22.0 per cent, reported relief from symptoms. In three the curettage was repeated twice and in one three times without benefit. Analysis of the four cases in which patients reported relief from symptoms showed that only one presented a minus rate associated with glandular hyperplasia. Of the remaining three, one had a positive rate associated with chronic infective endometritis, another had a normal basal rate with an atrophic endometrium and the third had normal endometrium but no basal rate was recorded.

No success was noted from the use of calcium in the form of lactate or gluconate, from the various iron preparations or general measures when used alone, but they did seem to improve the patient's general condition when used in conjunction with other forms of treatment. Parathormone was given to one patient with no improvement.

Two patients were operated on, a decapsulation of the ovaries with partial oöphorectomy being done. Neither of these patients reported relief. Nine patients were given radiation therapy. Six of these received X-ray in a dose calculated to cause a temporary sterilization. In two of these the spleen was also irradiated. The other three received 300-400 mgm. hours of intrauterine radium screened by 1 mm. of brass and 1 mm. of aluminum. In these patients other forms of treatment had been tried and found ineffectual. Seven of the patients treated with X-ray or radium reported relief from symptoms. The remaining two, however, continued to bleed and a sub-total hysterectomy was done in each as a last resort.

DISCUSSION

As far back as 1916, before the common use of basal metabolic rate determinations, cases of this type cured by the use of thyroid extract were recorded.[8] More recent investigations have shown that mild hypothyroid states, as evidenced by basal metabolic readings from 0 to minus 30 per cent, are important in the production of a fairly definite clinical syndrome of which abnormal uterine bleeding is a frequent symptom.[8, 9, 10] The other symptoms of this condition include lassitude, headache, vague pains, and constipation. The evidence, however, does not prove conclusively that the disturbance is limited to the thyroid alone. The close physiologic relationship between the glands of internal secretion would seem to indicate that it might be a multiple or general endocrine imbalance. On this basis we might assume that the mild hypothyroidism may be secondary to some change in the ovary which in turn is responsible for the endometrial hyperplasia and resultant bleeding or vice versa. Although this is largely theoretical, it at least partially explains one of our most common findings and rationalizes the treatment with thyroid extract.

DEDUCTIONS

1. A large proportion of young women complaining of abnormal uterine bleeding present no gross pelvic pathology nor any marked general pathology to account for the condition. These cases are usually diagnosed as essential uterine bleeding or idiopathic uterine bleeding.

2. A fairly large proportion of the patients of this type (86 per cent in this series) present a basal metabolic rate below zero but frequently within the generally considered lower limit of normal or minus 16 per cent. Most of these patients also have a glandular hyperplasia of the endometrium (80 per cent in this series).

3. The careful use of thyroid extract in doses sufficient to raise the basal metabolic rate above zero and to maintain it is beneficial in a large per cent of cases (73.9 per cent in this series).

4. Curettage is of very limited therapeu-

tic value and is seldom indicated except when it seems advisable to rule out malignant disease of the uterus.

5. X-ray, radium, and hysterectomy are effective in the treatment of this condition but should be used only as a last resort in young women.

6. Evidence from this series and from other recent contributions would seem to show that basal metabolic rate determinations within the generally considered low limit of normal minus 16 per cent may be definite evidence of mild hypothyroid states which can be benefited by the careful administration of thyroid extract. If this be true the limit of normal for minus rates should be changed.

BIBLIOGRAPHY

1. Cullen: Cancer of the Uterus, p. 479, 1900.
2. Novak and Martzloff. Am. Jour. of Obst. and Gynec., 8:835, Oct., 1924.
3. Shroder: Arch. F. Gynak., p. 104, 1915.
4. Fluhman: Jour. A. M. A., 93:1137, Oct., 1929.
5. Burch, Williams, and Cunningham: Surg., Gynec. and Obst., 53:338, Sept., 1931.
6. Warfield: Jour. A. M. A., 95:1076, Oct., 1930
7. Allen and Doisey: Am. J. Physiol., 69:577, 1924.
8. Salzman: Am. Jour. Obst., 74:812, 1916.
9. Higgins: Jour. A. M. A., 85:1015, Oct., 1925
10. Plass, E. D: Am. Jour. Obst. and Gynec., 21:205, Feb., 1931.
11. Sehrt: München Med. Wochenschr., 60:66, 1911.

SAVING THE PERINEUM*

J. E. COOPER, M.D.†
BATTLE CREEK, MICHIGAN

I think that it can safely be said that so long as women have given birth to babies that there have been perineal lacerations. I also think that it is equally true that the ancient women were not subject to so many lacerations nor to such a degree. This, no doubt, is the result of the different habits and mode of living of the different ages.

Hippocrates recognized the importance of the prevention of perineal laceration, and sought to soften the structures by oily salves and relaxing douches, a practice which was recommended by Baudelocque and others, even by some today. Van Horn (seventeenth cenutry) dilated the perineum, pushing back the coccyx and stretching the levator ani manually. Soranus of Ephesus (about 110 A.D.) first attempted to "support" the perineum with the hand.

I believe that the consideration of the subject of perineal lacerations is almost as great, if not greater, than that of any other subject, not that the single lacerated perineum is of so great concern but in the total number of lacerations and the attendant disabilities and inconveniences such as prolapse and protrusion, procidentia, cystocele and rectocele, incontinence both rectal and urinary, with the backache and bearing down sensations and constipation and leukorrheal discharge, so that the total disabilities of perineal lacerations I think will outweigh most any other consideration.

The intelligent woman of today has the lion's share of responsibility when she carries her baby to term and goes through the ordeal of bringing that baby into the world and then nurses it for at least half a year with all the other duties connected with household and society. That woman has a right to be in the best physical condition.

Most obstetricians at the present time will give a woman enough sedatives to relieve her of the few hours of pain during childbirth and yet these women may go through the balance of their life with the discomforts of incontinence, prolapse, backache, leukorrheal discharge, etc., for the want of a little care during the delivery.

A great many times have I found this condition, that at a spontaneous delivery no lacerations had been discovered, yet the perineum at the time of delivery was examined, but later on at another examination the relaxed perineum and cystocele and rectocele gave one the impression that a laceration had taken place.

The only explanation which I can give is that the muscle fibers of the transverse perinea were ruptured beneath the mucous membranes, thus allowing the rectocele and cystocele to develop, having all the effects of a lacerated perineum.

(It sometimes happens that some other physician examines your patient for you and

*Read before the Section of Obstetrics and Gynecology of the Michigan State Medical Society at its annual meeting in Pontiac, Michigan, September 23-24, 1931.

†Dr. Cooper is Obstetrician at the Battle Creek Sanitarium.

also tells her that you let a perineal laceration go unrepaired.)

In consideration of these facts I have attempted to work out a plan to save the perineum to these women.

The labor is allowed to proceed normally into the second stage. (Of course, the usual analgesia is given, such as morphine and scopolamine or rectal analgesia and as much as the individual patient requires.) While the head is pressing hard on the perineum you can estimate the dilatability of the perineum and when the point of maximum dilatation is reached and the head will not pass over the perineum without laceration, then do your episiotomy on either side (it makes very little difference which). If you have not already applied your forceps do so now and lift the head gently over the perineum.

This episiotomy wound is easy to repair. In repairing a laceration or episiotomy wound it should be the plan to unite the subcutaneous or muscular layers together with buried catgut and later the mucous membrane and skin.

The after-results of this episiotomy is that the perineum is firm and strong and will hold the pelvic organs in their proper place.

I know that occasionally you may misjudge the dilatability of the perineum, also the necessary depth of the episiotomy and may obtain lacerations other than the episiotomy. In such a case it is necessary to repair both the episiotomy and the lacerations.

Now, I do not mean to say nor to infer that all cases should have an episiotomy and a low forceps delivery, not even all primipara, but in those cases in which you can foretell of a laceration of importance.

Now, I can and do conceive of those cases in which a nick in the perineum or a slight mucous membrane tear might be preferable to an episiotomy but they all should be repaired.

I was interested in a few articles written recently by others along similar lines. A. T. Lask of Chicago in the Journal of A. M. A. reported 1,516 post natal examination in which there were 335 relaxed perinea. These examinations were made at the clinic and considerably over half of them were negresses.

Dr. Lask's study was that of prophylactic gynecology beginning six or eight weeks after delivery but I believe that prophylactic gynecology should begin before delivery is completed. I agree with Dr. Lask in his statement that in only those who needed the episiotomy should it be done.

In think that in this connection a few statistics will be in order. I am reporting on a study of 1,437 cases. These patients, I would like to say, were not of the clinic type but of the highest and most intelligent class of private patients.

Of this number I had 607 lacerations of all types, from a mere nick in the mucous membrane to a third degree laceration. This is 41 per cent of the total. Also out of this number (1,437) I did 554 forceps operations, including high, mid and low, the great majority being low forceps. This makes 31 per cent of the total. Also out of this number I did 181 episiotomies or 12 per cent of the total.

In considering the results of any procedure it is necessary to consider the morbidity and the mortality. In a recent article by Paul W. Willits of Grand Rapids in the Journal of the Michigan State Medical Society, in reporting on the study of the morbidity, 1,691 full term obstetrical cases (using as a basis of morbidity a temperature of 100.4 per cent on two consecutive occasions after the first twenty-four hours) reports a morbidity of 14.7 per cent.

In considering my own cases I am of the opinion that this rule is too liberal and that it should be more strict, but reporting my cases on the same basis, I had a general morbidity from all causes without classification of 120 cases or 8.1 per cent, while in those with the episiotomies there was a morbidity of 4.4 per cent. It is true that there was one mortality in this list of episiotomies but it was in no way connected with the episiotomy for the infection did not begin till on the 15th day and then as a streptococcic sore throat.

Now, as to the after-results. Of this total number of 1,437 cases, 749 returned for post natal examinations at six or eight weeks post partum, and of this number (749), I have classed as a firm perineum 728, and as a relaxed perineum 21.

Since making this study I realize that there is no standard by which to measure a firm or relaxed perineum, but I considered that with the introduction of two fingers into the vagina, if the perineum grips the fingers firmly and there is good thickness to the perineal body and no rectocele is visible, I consider that a firm perineum.

Now, I feel that this good showing would not apply to the whole number of 1,437 cases for in going over these cases I was struck with the fact that there was only slightly over 50 per cent return for post natal examinations and I was also impressed with the fact that the great majority were the young primipara and that many of the multipara did not return for further examinations. Nevertheless, I am greatly impressed with the advisability of doing an episiotomy and low forceps deliveries in all proper cases and of a thorough repair of all lacerations and episiotomies.

THE GENERAL ASPECT OF VESICAL CALCULI

ROBERT ROSEN, S.B., M.D.†
DETROIT, MICHIGAN

Vesical calculi formation is governed by the same laws as urolithiasis in general. It has been a heretofore unsolved problem productive of considerable research. Some extraordinary facts have been established.

Various theories have been advanced as the etiological factors.[1] The remarkable research on mice and guinea pigs is the first real landmark in the solution of this intricate problem. Urinary calculi were produced at will by Osborn and Mendel,[2] Fugi,[3] McGarrison,[4] and several other investigators by eliminating Vitamin A from the diet.

The colloidal theory of molecular coalescence in the presence of colloidal material was an important contribution by Rainey,[5] Ord,[6, 7] later by Ebstein,[8] modified by Ord and Shattuck,[9, 10] and amplified on a physico-chemical basis of crystallization by Shade,[11] later by Spitzer and Hillkowitz.[12]

The nuclear theory is responsible for many interesting controversies.[1, 13, 14] The presence of epithelium or blood or various foreign substances such as catheters, sutures, hairs, cord, gum, artifacts, etc., act as nuclei. These, superimposed on an ulcerated surface, are conditions conducive to calculi formation.

Heredity and climate have been set forth as factors in the formation of stone. Infection as a rôle in the formation of calculi is the second important landmark in this problem. Hager and Magoth[16, 17] have isolated a specific organism (Proteus ammoniæ) and have been able to reproduce vesical calculi with it under favorable conditions. Rosenow[18] used the coccus group, while Israel[19] and Ward[20] found B. coli as the offenders in their cases.

The frequent occurrence of foci of infection in parts suffering from calculi, and the almost universal finding of the infected kidney or bladder associated with stone lend weight to the belief that a specific stone-forming infection is at work in most instances. And yet there are cases of infection existing over a long period of time without calculi formation, and calculi occurs without infection.

It is accepted that crystals of sufficient size to form the nucleus of a stone, at one time acid, at another alkaline, are frequent in the urine,[11, 12] and in the presence of pus, bacteria, or foreign bodies plus the metabolic factor, and we have the possibility of stone formation, especially if we have such a nucleus caught somewhere along the urinary tract. If this is true, it is evident the part heredity plays, for any transmitted deformity, regardless of how small, can cause retention. Autopsies, however, have shown numerous abnormalities that would be considered favorable to calculi formation, yet none was found, so that while the mechanical factors and obstruction cannot be ignored, we must consider that stones are formed under a great variety of conditions. Keyser[1] state that, from accumulated clinical data, it seems there is a "local mechanism at work in causing stones."

Thus we see one theory after another advocated to be discarded in whole or in part, and replaced by another, or in combination with one of the above theories. This is the present status. Therefore, we can postulate that *no one single factor is responsible* for *calculi formation.*

Calcium oxalate is generally accepted as the commonest calculi found on this continent, while in Europe uric acid or urates

†Dr. Robert Rosen is a graduate of the Michigan State College, 1913, S.B. M.D., 1918, Johns Hopkins Medical School. His specialty is urology and urological surgery.

seem to be the commonest. Factors causing alkaline decomposition in the bladder are more frequent than in the kidney, hence, the proportion of phosphatic stones is greater among vesical calculi.

Vesical obstruction, either embryologically in the structure of the prostate or urethra, are not so infrequent; hence, alkaline decomposition and infection occur. It is difficult to state the origin of vesical calculi. Generally speaking, renal calculi that can pass down the ureter will be extruded through the urethra without difficulty, unless obstructed by some anomaly, so that without intra-vesical obstruction, theoretically at least, there should be no bladder calculi of renal origin. The failure of such stones to leave the bladder is generally excellent proof of the existence of such an obstruction. As the stone is retained, it continues to increase in size in the bladder, and the composition may change, depending on the hydrogen ion concentration.

Calculi may and do originate in the bladder in a pure state or they may be due to foreign substances which may become encrusted on an inflamed surface, and thereby become the nuclei of calculi.[21]

Vesical calculi may exist for a considerable length of time and give little or no symptoms. This is especially true where they are associated with prostatic adenoma or a diverticulum where a residual urine exists. In these cases, the calculi are found on cystoscopy or at suprapubic cystotomy.

Vesical calculi may have all or just a few of the cardinal symptoms, such as pain at the vesical neck radiating to the meatus, sudden stoppage of urinary flow in full stream, hematuria, tenesmus, priapism, urgency, frequency and dysuria.

This vesical calculus pain is recognized by the fact that it is aggravated on motion, and especially at end of micturation. This pain can also be produced by pathology at the vesical neck in vesical tuberculosis or verumontanitis, neoplasm, and encrusted cystitis, so that to arrive at an accurate diagnosis a careful cystoscopic examination will enable one to eliminate these and arrive at the correct diagnosis.

The second important characteristic symptom of vesical calculi is the sudden stoppage of the urinary flow while in full stream. This is due to the sudden forcing of the stone against the vesical sphincter. Here, also, we can have this symptom produced in ulceration at the vesical neck.

Another common symptom is frequency in the daytime on standing in contradistinction to prostatic adenoma, where nycturia is the rule: *i.e.*, in the reclining position. This symptom also occurs in all conditions associated with vesical orifice pathology.

Dysuria and tenesmus occur depending on the size of the stone and its pressure against the ulcerated surface at the vesical orifice, and as a result we may have hematuria, microscopic or macroscopic, usually terminal; and pyuria is found in amounts depending on the amount of blood and the type of infection present, which is also true of the albuminuria. Priapism is a symptom found mostly in children and young individuals.

DIAGNOSIS

With the modern innovations, the diagnosis is not difficult. A complete history should be taken in every case. Particular attention must be given to the urological tract. The history may give us the first clue as to the real nature of the lesion in question. A previous history of renal colic or fixed pain or passage of gravel is indicative of calculi. Hematuria and pyuria are important landmarks in arriving at a diagnosis of vesical calculi. This is finally clarified by a cystoscopy. A physical examination may not elicit anything definite. A complete urinalysis and acid-fast smears are made, and from these findings our next course of procedure is evident. Cystoscopy, cystograms, pyelograms, X-ray or intravenous urography is performed.[23, 27] If the individual is hypersensitive and instrumentation is difficult, it might be best to X-ray the patient first and then have a cystoscopy performed under an anesthetic. Here, it is essential to explore the bladder well to ascertain the number of calculi, size, shape, etc. Difficulty may be encountered by the presence of a hypertrophied trigone or where the calculi lay in the diverticulum. Again, the cystoscope, when brought in contact with the stone, gives a grating or metallic sound. When the calculus lies in places not accessible to the cystoscope, a cystogram generally photographs the stones. The urine may be acid or alkaline, and as a result the urates and oxalates are predominant if the former is the case, and phosphates if the latter is the findings.

A differential diagnosis may disclose ul-

cerated vesical orifice, infections, prostatitis, neoplasms, diverticulum, tuberculosis, or strictures of the urethra and ureter, and foreign bodies.

TREATMENT

With our modern improvements in diagnosis and treatment, it still requires a nicety of judgment in deciding the proper method of treatment to apply to a given case. We must not only consider the immediate need, but most look forward to the future welfare of the patient. Unless we can remove the cause, we must expect recurrences. Our treatment may be separated into: (1) prophylaxis, (2) medicinal, (3) instrumental, and (4) operative.

1. Prevention consists in the removal of obstructions and all conditions that tend to calculi formation as: strictures, infections, diverticulum, bladder and prostatic obstructions, etc. The precipitation of urinary salts must be prevented. To do this, foods rich in Vitamin A, as milk, butter, spinach, turnip greens, carrots, yellow corn, etc., should be recommended. The patient should be instructed in the use of litmus paper in order to change the hydrogen ion concentration, by suggesting large quantities of water, acidifier, or alkalies.

2. The medicinal treatment consists in the administration of drugs that should dissolve the stones. A great variety of chemicals have been tried. Medicinal waters have been advised. Health resorts have exploited the merits of their waters, and may have benefited some, but in general the effect is questionable because the chemical character of the human organism enters into the reaction. Hence, we get results *in vitro* that we do not obtain *in vivo*. Sodium phosphate, hexamethylentetramine, sodium bicarbonate, piperazin, and turpentine are some of the drugs that have been taken internally to dissolve calculi. Several cases of gravel not included in this series have been treated successfully using the latter drug.

The Bulgarian bacilli has been injected intra-vesically with benefits in some cases of encrusted cystitis.[21] Each remedy has been strongly advocated, but at best is of uncertain value, so that while the theory of dissolving the calculi is logical, it has met mostly with failure.

3. The instrumental treatment is a most fascinating chapter in the development of modern urology. For a complete history of this subject I refer the reader to the chapter on "Stone in the Bladder," Modern Urology, Volume 11, by Cabot, pages 144 to 172. There the subject is unfolded from its earliest time to the present.

In deciding the course of treatment to follow for vesical calculi, we must remember that small stones are often passed voluntarily during micturition. Even large stones sometimes pass without difficulty, so that it is advisable to wait in uncomplicated cases for them to pass.

Given a definite uncomplicated case of a simple, small calculus, litholapaxy is the method of choice. Small calculi are removed by Young's cystoscopic rongeur or the operating cystoscope, or where the calculus has to be crushed, the ordinary lithotrite is used, followed by evacuation of the fragments. Having decided to do a litholapaxy, the surgeon has the choice of a general, local, or spinal anesthesia.

When we find a complicated calculus the removal of the stone becomes secondary.[28, 29] A suprapubic lithotomy is performed and the stone removed at the same time with the complication.[28, 29] Neglect to remove these obstructions, whether prostatic adenoma, diverticulum, stricture, or infection, or incomplete removal of the fragments will tend to a recurrence. Therefore, we must not only remove the calculi, but it is essential to remove the contributing factor as well. Let us consider the pros and cons of litholapaxy and suprapubic lithotomy in the treatment of calculi.

The advantages of litholapaxy over suprapubic cystotomy are obvious:

1. Shorter convalescence period.
2. In cases of recurrence, the same procedure can be used.
3. Mortality almost negligible.
4. Safe procedure in competent hands.
5. Less danger of infection—less surface involved.
6. Requires less anesthesia.
7. Less expensive.

Complications:

1. Prostatitis and epididymitis.
2. Incomplete removal of crushed stones and leaving fragments as a nucleus for new calculi formation.
3. Perforation of bladder.

Contra-indications:

1. Large calculi.
2. Contracted bladder.
3. Irritable bladder.
4. Vesical complications—pathology of the vesical and adnexa.

Advantages of cystotomy over litholapaxy:

1. Operation meets other conditions under direct vision.
2. Where stone is large, it is readily removed intact.
3. In irritable, contracted bladders, little difficulty is offered.

Complications:

1. Drainage in septic bladders.
2. Infection of prevesical space.
3. Urinary fistula.
4. Pyelonephritis, septicemia, peritonitis.

Contra-indications:

1. Tubercular processes.
2. Renal calculi.
3. Spinal cord bladder.

Anesthesia:

1. Local, spinal, rectal (avertin), general ether or gas, sacral block.

4. Sanford's[28] discussion of treatment of vesical calculi is well worth reading. Young[13] and Cabot's[14] articles on this subject will also repay the reader to peruse them. La Roque describes a new method of approach to the bladder.[30]

RESUME AND CONCLUSIONS

The advantages of litholapaxy over cystotomy are so obvious that in uncomplicated cases it should be resorted to more often. All that is necessary is a good lithotrite, sensitive hands, sound judgment, and proper anesthesia. With these at our command, we should expect good results. This is true in ordinary simple cases; in complications, we have to operate, but we must observe all the facts, and if we disregard them we are courting disaster. As for example, case 6 of our series. Here we have a spinal deformity, a hydronephrotic tuberculous kidney on one side, and small calculi on the opposite side with a contracted tubercular bladder holding only 75 to 100 c.c. This patient has had several renal attacks lately and has passed several calculi. Should we do a cystotomy and invite a flare-up of the tuberculous process? In view of the fact that the calculus was large and a contracted bladder present, cystotomy would certainly seem the method of choice. We, however, did not feel justified to do so, as a recurrence seemed almost a certainty in this case. That influenced our judgment and a litholapaxy was done instead. The stone was partially crushed, and as the patient had vesical distress following this, he was examined by the X-rays. It did not show perforation as suspected (Plate 5). He developed a pericystitis in a few days. We operated, and a short time later he died. At the autopsy we found the right kidney substance replaced by a cheesy pus sac. On the opposite side we found several small calculi. The bladder wall was injured. This proves the rule of the dictum already laid down, never to do a litholapaxy when we have a large calculus and a contracted bladder. Nevertheless, we feel that when the X-ray shows associated nephrolithiasis, that litholapaxy should be done as it can be repeated for recurrences without the necessary hospitalization as would be required in case of suprapubic cystotomy.

The other cases in this small series were uneventful. They all were done in the office using local anesthesia with the exception of case 5 where we did a spinal. This was the only case that did not return home the same day.

In this series we found four cases (cases 2, 4, 6, 7) had urethral strictures. One case (case 1) had a foreign body. Four cases (cases 1, 2, 4, 5) were confined to the bladder alone. Two cases (cases 3, 6)

TABLE OF CASES

Case Number	Infection	Blood	Obstruction	Complications	Renal Colic
1.	x	x	Piece of cord	None	None
2.	x	Microscopic	Strictures urethra	None	None
3.	None	x		Renal calculi	x
4.	x	x	Urethral strictures	Prostatic calculi, adenoma	None
5.	None	Microscopic		Diverticulum	None
6.	x	x	Urethral strictures	Renal calculi, renal hydronephrosis, renal tuberculosis, vesical contraction	x
7.	None	Microscopic	Urethral strictures	None	x

x signifies positive findings.

were complicated with renal calculi. In three cases the urine was clear and no infection was present (cases 3, 5, 7). Four showed microscopic blood while four (cases 1, 3, 4, 6) showed macroscopic traces. All showed hematuria in some form in this

Fig. 1. Case 5. Plain roentgenogram. Small single calculus.

Fig. 2. Cystogram demonstrating small diverticulum and narrow neck.

Fig. 3. Case 6. Plain roentgenogram showing a large laminated calculus and several small ones and a few phleboliths.

Fig. 4. Case 6. Intravenous urogram demonstrating left tubercular hydro-nephrosis and hydro-ureter.

cases gave no history of renal colic (cases 1, 2, 4, 5) while three cases (cases 3, 6, 7) gave evidence of passage of stone from kidney to bladder. Three cases (cases 2, 5, 7) series. From this small series, to draw any definite conclusions would be unconvincing. We feel that even though litholapaxy in this series showed 14.3% failure, it was not due

to the method, but to the fact that we disregarded some of the conditions necessary to perform a litholapaxy with safety. In conclusion, we feel that litholapaxy is a safe

Fig. 5. Case 6. Plain roentgenogram showing crushed calculi confined to bladder.

and reliable method to use in properly selected, uncomplicated cases.

CASE REPORTS

Case 1.—Male, 26, W., 1921. History of masturbation, complained of frequency, hematuria, dysuria, infection present. Cystoscopy showed solitary calculi in markedly inflamed bladder. Litholapaxy was done using local anesthesia. Crushed stone and found a piece of cord in the center. Complete recovery.

Case 2.—Male, 42, W., 1927. Numerous attacks of Neisserian infection. Complained of frequency, dysuria, nycturia. Infection present. Microscopic blood. Found strictures. These were dilated. Cystoscopy disclosed small calculi. Litholapaxy was done using local anesthesia. Uneventful recovery.

Case 3.—Male, 26, W., 1922. Complained of painful micturition. Hematuria. No infection found. Cystoscopy disclosed large stones. X-ray also showed calculi in both kidneys. Refused operation. Operation done five years later elsewhere. Died.

Case 4.—Male, 62, W., 1927. Complained of frequency, hematuria, burning, nycturia ten or fifteen times. Mixed infection present. Found strictures which were dilated. Cystoscopy disclosed encrusted cystitis and a stone imbedded in vesical neck with slight prostatic adenoma. We advised suprapubic cystotomy but the patient refused an operation and insisted upon litholapaxy. This man had not worked for eighteen months. Injected emulsion of Bulgarus bacillus with improvement of the cystitis, but had no effect on the calculus. We performed partial litholapaxy at eight different times because of the location of the stone being imbedded, using novocain only the first three times. Gained 35 pounds and returned to work. Another remarkable part of this case was that the patient also refused the use of the evacuator and passed large quantities of the crushed fragments voluntarily. Saw this patient in May, 1931. No recurrence. Uneventful recovery.

Case 5.—Male, 39, W., 1930. Complained of itching in the urethra following a Neisserian infection for nine months. Frequency during the day. Stoppage of urine during passage. Microscopic blood found. Cystoscopy disclosed a small calculus lying on the trigone (Fig. 1). A diverticulum was found. A cystogram was done and verified the cystoscopic findings (Fig. 2). It was small and well drained and we decided here also to do a litholapaxy as there were several suspicious shadows in the kidney region. Used nupercain, spinal. Removed calculus to the meatus and then crushed it. Uneventful recovery.

Case 6.—Male, 43, W., 1931. Numerous attacks of Neisserian infection. Complained of frequency during the day. Dysuria (painful urination), burning cystitis off and on for twelve years. Tubercular hip. Poliomyeliits (deformed leg), deformed spine, scoliosis, lordosis. Mixed infection. Found strictures. These were dilated and obtained metallic click. Cystoscopy disclosed inflamed bladder. Unable to locate calculi. X-ray showed large laminated calculi and several small ones (Fig. 3). Left kidney hydronephrosis and hydro-ureter (plate 4). Calculi shadow was seen on right side in right kidney region. Uroselectan did not add any other information (Fig. 4). Had several renal colic attacks and passed several calculi. As a result, we did not feel justified to do a cystotomy as a recurrence seemed almost a certainty. Hence, contrary to the dictum not to do a litholapaxy in a contracted bladder and a large calculus, we decided to do a litholapaxy, following which he developed a pericystitis. In view of the possibility of a perforation, an X-ray was taken before the operation. No perforation was found (Fig. 5). The patient died.

Case 7.—Male, 32, W., 1930. Several attacks of Neisserian infection. Complained of severe spasmodic pain. Renal colic. Found strictures. These were dilated. No improvement in symptoms. Cystoscopy showed small calculi. Put on forced fluids and changed diet. Litholapaxy performed. Uneventful recovery.

Note: A bibliography of thirty items accompanies this paper. The bibliography will appear in the author's reprints.

STREPTOCOCCUS MENINGITIS—REPORT OF A CASE WITH RECOVERY

NORTON CANFIELD, M.D.†

FROM THE DEPARTMENT OF OTOLARYNGOLOGY, UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

Streptococcus meningitis is still considered an extremely grave disease, usually resulting in death within a few days. However, from time to time well authenticated cases of recovery have been reported. In March, 1931, Rosenberg and Nottley[1] adequately summarized the reported recoveries, and added one case. With their presentation is also included a summary of the various types of treatment including the surgical procedures, which have been advocated. Thirty-three cases of streptococcus meningitis, substantiated by bacterial culture, are on record at the University of Michigan Hospital, all of which, with one exception, resulted in death.

Mr. O. entered the University of Michigan Hospital June 24, 1929. History: severe head cold seven weeks ago followed shortly by pain in the right ear, and the appearance of a purulent otitic discharge which persisted until admission. Two weeks before admission, the patient had chills, fever, extreme fatigue, with pain over the right eye and right occipital region. He was confined to bed, and lumbar puncture revealed a turbid spinal fluid under increased pressure.

Examination: Well developed acutely ill youth of seventeen, with pain along the spine, congestion of the nasal and pharyngeal mucosæ, tonsils absent, left tympanic membrane normal. Right external auditory canal was stained with mercurochrome, which prevented adequate examination of the middle ear, but there was no visible discharge. Neurological examination revealed diminished lateral deviation of the eyes, Kernig's sign present, and stiffness of the neck. There was considerable neuroretinitis of the right fundus, and two diopters of papilledema of the left optic nerve head. Lumbar puncture demonstrated increased spinal fluid pressure, xanthochromia, and turbidity. Nonne-Apelt reaction: phase 1, marked ring; phase 2, marked opalescence. There was normal reduction of sugar, cell count 1000 plus per cubic millimeter. Microscopically the fluid showed many pus cells, and bacteriologically, a few short-chained Gram-positive cocci. Culture revealed streptococcus hemolyticus. Patient's temperature was 101°, pulse rate 96, respirations 22 per minute. X-ray studies of the mastoid regions showed the left temporal bone to be within the limits of normal, and the right temporal area showed "cells poorly defined, trabeculæ hazy, inner table of the skull adjoining this region seems to have broken through" (Dr. P. M. Hickey). A diagnosis of streptococcus meningitis was made. Surgical interference with the right mastoid was considered, but was decided against, because of the grave condition of the patient.

During the first week in the hospital, the patient complained of severe pains along the spine. He was very restless, and the temperature varied from normal to 103° F. An urticarial rash developed over the entire body, which disappeared in twelve hours. Three days after admission there was a temporary relief from the back pain, but during the next few days there was severe pain in the legs. Neck stiffness and Kernig's sign remained.

One week after admission lumbar puncture revealed 650 cells per cubic millimeter, and the next day only 100 cells. Bacterial culture was again reported by the Department of Bacteriology as positive for streptococcus hemolyticus.

Another lumbar puncture performed two days later procured fluid which contained 170 cells per cubic millimeter. This specimen was reported bacteriologically negative. On this day anti-streptococcus serum (Mulford) was administered for the first time; 5 cubic centimeters intradurally and 10 cubic centimeters intravenously. The next day 10 cubic centimeters of the same type of serum was given intradurally and 10 cubic centimeters intravenously.

Lumbar puncture was performed daily for the next twelve days, and in each instance the fluid was reported bacteriologically negative. The patient gradually improved. The spinal fluid count gradually dropped to between 70 and 80 cells per cubic millimeter. Forty-five days after admission the patient was discharged in apparently normal health, having lost fifteen pounds weight. He was neurologically negative, and the only positive finding was that of 70 cells per cubic millimeter in the spinal fluid.

Six weeks after discharge the patient returned for re-examination. In the meantime he had been leading a normal life, gradually gaining in strength. Examination showed the right tympanic membrane to be normal. X-ray of the right mastoid showed it to be aerated. Neurological examination was negative. There were 100 cells per cubic millimeter in the spinal fluid.

The patient was reported to be in good health nine months after discharge from the hospital. Examination in the University Hospital Clinic nineteen months after dismissal showed him to be normal. A more recent communication states that he has not been ill since he left Ann Arbor nearly two and one-half years ago.

This is apparently a case of streptococcus meningitis with recovery.

†Dr. Canfield is a graduate of the University of Michigan Medical School, 1929, and is at present an instructor in the Department of Otolaryngology.

REFERENCE

1. Rosenberg, Lester, and Nottley, Harold W.: Recovery from streptococcus meningitis. Ann. of Int. Med., 4:No. 9, March, 1931.

UNDULANT FEVER (BRUCELLA INFECTION) IN CHILDREN*

JOHN F. SANDER, M.D., F.A.A.P.†
LANSING, MICHIGAN

During the past twelve years a tremendous amount of investigative work has been done in the United States and Northern Europe with respect to Brucella infection in man. Evans[1] in 1918 demonstrated that the causative agent, Brucella abortus of Bang's disease of cattle, commonly known as infectious abortion and the organism, Brucella melitensis, which has long been known as the cause of undulant fever in man in the Mediterranean countries, were closely related. There has been considerable confusion in the minds of many workers as to whether the two organisms are separable and distinct species or one and the same organism. In recent years certain laboratory tests have been developed which easily distinguish between the organisms. There are in the Brucella group three distinct species, namely, Brucella abortus of which the cow is the host, Brucella melitensis of which the goat is the host and Brucella suis of which the hog is the host. These organisms have been found to infect all domestic and many wild animals.

Brucella is transmitted to man by direct contact with infective material from infected animals, or the ingestion of raw products containing the organism.

A. V. Hardy[2] and later W. Simpson[3] have collected large series of cases of Brucella Infection in man, and have given comprehensive findings as to the sumptomatology, diagnosis, and clinical course of this disease. Simpson states that approximately 25 per cent of his cases occurred in individuals of pediatric age. Recently Hubbard[4] of Boston has reported a case of Brucella Abortus Infection in a child of six years of age. Various reports have come from England, Denmark, Sweden and Germany of instances of Brucella Infection in children. Anderson and Pohl[5] reported three cases in children in 1931. The youngest cases of Brucella Infection in the literature are those of a child of one year of age reported by Kohlbry[6] in 1929 and of a twenty months old infant reported by Williamson.[7]

We wish here to impress on the profession that this disease is undoubtedly more common than is suspected, and that with more thought to the possibility of this disease and with improved methods of diagnosis and treatment many children so afflicted will be more promptly recognized and treated.

During the past six months with the valuable advice and assistance of Professor Huddelson of Michigan State College, one of the pioneers on the work of Brucella Infection, we have diagnosed and successfully treated six children suffering with Undulant Fever. (Five other children are under treatment at the present time.) These patients ranged in age from seventeen months to eleven years. These children were all from the higher type of American home. The diet of each one had been well supervised at all times. However, in each case there was a history of having either raw milk at some recent period, or of eating raw eggs in the form of egg-nogs at frequent intervals.

The symptomatology of these patients varied not at all from that described in the articles already mentioned which dealt largely with Undulant Fever in adults. The constant symptoms were lassitude, ease of fatigue, weakness and anorexia. The constant signs were intermittent fever, sweating and loss of weight. One patient (B. M.) complained of dizziness, nausea, and vomiting at intervals. She also had severe headaches and generalized joint pains. A persistent diarrhea (watery pea green stools) obtained for three weeks preceding treatment. One (J.D.) suffered severe chills and fever at such regular intervals that she was tentatively diagnosed malaria, admitted to the hospital, and the blood carefully studied for plasmodiæ malaria, which of course were not found. None of these pa-

*Presented at the meeting of the University of Michigan Pediatric and Infectious Disease Society, Ann. Arbor, Michigan, November 12, 1932.

†Doctor Sander was graduated from the University of Michigan in 1923. He served two years interneship in Pediatrics at the University of Michigan Hospital. He was assistant in Pediatrics at Harvard Medical School, 1925-1926. He was instructor in Pediatrics at the University of Michigan, 1926-1927. Since 1927 he has been engaged in private practice of Pediatrics at Lansing, Michigan.

tients was ever acutely ill and even during the period of extremely high temperature did not impress clinically as being more than indisposed (exception being patient J. D. during a chill).

The urine was negative in all cases except for the presence of a slight amount of albumin during periods of hyperpyrexia. With one exception (J. D.) each patient showed a mild decrease in the white cell count with a relative lymphocytic increase. The hemoglobin and red blood cell count varied but little from normal in any case. The tuberculin test (Von Pirquet) was uniformly negative. Widal test against typhoid was negative in each patient. The agglutination test for Brucella Infection was negative in each case. Blood culture was also negative. Stool and urine cultures were persistently negative, in each patient.

The differential diagnosis of Undulant Fever in children is of course quite a difficult task. The many diseases of a subacute and chronic nature to which children are heir persistently complicate the arrival at an early date of the correct diagnosis. Among the more common conditions which are frequently confused we find influenza, and at least in certain localities the blanket term "intestinal-flu." Typhoid and paratyphoid fever, pyelitis, tuberculosis, rheumatic fever, and gastro enteritis must be ruled out. Occasionally it is also necessary to refute an almost obvious diagnosis of malarial fever before the correct diagnosis of Brucella Infection can be established.

The diagnosis in these patients was arrived at on the basis of a positive intradermal test using a pure nucleo-protein prepared from cells of the organism and the absence of Brucella opsonins as determined in a phagocytic system with citrated whole blood.

The cases reported in this paper were treated with an agent called Brucellin developed at the Central Brucella Station at the Michigan State College. This agent has been used in treating about 100 acute and chronic cases of undulant fever with satisfactory results.

The results obtained from the use of Brucellin and the nucleo-protein intradermal and Brucella opsonic test, will be reported on in a forthcoming paper from the Central Brucella Station.

The treatment of undulant fever in man has long been a perplexing problem to the clinician. Many agents have been reported upon in the past which appeared to give satisfactory results in certain cases. When these treatments were extended to others, the results have been discouraging. The excellent result of a certain agent in one or two cases may be accounted for from the course of the disease. That is, in many instances a patient's recovery takes place by crisis. If by coincidence an agent was used in the treatment of the disease at this particular time, it would be natural to ascribe the recovery to the agent used, when in reality recovery followed on the natural course of the disease. It is only from the successful application of any method of diagnosis and treatment on a large number of patients and in many hands that any positive conclusions can be drawn.

CASE REPORTS

Case 1.—Patient M. B., aged seventeen months, female; approximate date of onset, August 15, 1932. Presenting symptoms: General malaise, loss of appetite, depleted activity, rapidly developing pallor, weakness, sweating and chilliness, constipation, loss of weight and temperature varying from normal to 104 degrees.

She was skin tested with nucleo-protein of Brucella Abortus on August 22, 1932. This was extremely positive. Phagocytosis for Brucella Abortus at this time was negative. Agglutination for typhoid bacilli and Brucella Abortus was negative. The urine showed a slight amount of albumin, otherwise negative. The white count was 8,400, with a relative lymphocytic increase. The tuberculin test was negative.

She was given the following injections of Brucella: .2 c.c. August 14; 0.5 c.c. on August 17; 1 c.c. August 20 and 1 c.c. August 23, 1932. Following the first two injections there was no local or general reaction. Following the last two, there was some rise in temperature, and some increase in general malaise. Both rapidly returned to normal. Twenty-four hours after the last injection the patient's temperature was normal and remained so thereafter. She rapidly improved in every way. There was full return to normal activity; she developed a good appetite; there was no further sweating, and elimination was normal. She rapidly regained her lost weight. Ten days after the last injection she showed high phagocytic activity for Brucella Abortus. Her general good health has continued to the present time.

Case 2.—Patient M. J. D., aged three years, four months, female. Approximate date of onset was June 1, 1932. At that time there was an irregular, intermittent fever. There were no other symptoms except an increasing fatigue in the afternoon. This continued for about three weeks, at which time she began to develop chills, which occurred at three to four day intervals—and usually between one and three o'clock in the afternoon. In addition, there was weakness and sweating following the chills. She complained of headache and backache. Extreme anorexia and constipation developed. The patient was very irritable during the attacks of fever. There was loss of weight.

About July 1, 1932, the patient was examined, and tentatively diagnosed Malarial Fever. She was admitted to the hospital for study, and the blood examined before, during and after a chill for plasmodia malariæ. None was found. However, at this time the patient became symptom-free, and had no more rise in temperature or other symptoms for four weeks. At this time the general symptoms before mentioned returned with increased severity. She was skin tested with nucleo-protein of Brucella Abortus on August 12, 1932. This gave an extremely positive reaction. Blood taken at this time showed a negative phagocytosis for Brucella Abortus. Agglutination test was negative for typhoid and Brucella Abortus. The urine was negative. White blood cell count showed an increase to 12,500 with a polymorphonuclear relative and absolute increase. The tuberculin test was negative.

The following injections of Brucellin were given: August 12, .2 c.c.; August 15, .5 c.c.; August 20, and August 24, 1.0 c.c. There were no local or general reactions following any of these injections. The patient had no more chills. Following the first injection, there was no further rise in temperature. Her appetite improved. The irritability decreased definitely, and she made a rapid return to normal activity. Ten days following the last injection, her blood showed high phagocytic activity for Brucella Abortus. Her general improvement has continued to the present date.

Case 3.—Patient D. H., aged five years, female. The approximate date of onset was April 1, 1932. At that time the parents described that they noticed an increase in fatigue with general weakness, lack of pep, and increasing pallor. There was, early in the course of this disease a rise in temperature, varying from one to three degrees, at irregular intervals. There was profuse sweating during the fever, and occasionally night sweats. No chills were noticed. There was complaint of backache and pain in the knees. The appetite was very poor, and there developed a rather severe constipation. The patient lost weight rapidly.

This condition persisted, with an occasional remission of several weeks, until about the first of September. At this time, all of the aforesaid signs and symptoms recurred and in an increased severity. She was first examined on September 19, 1932. At this examination she gave a very positive skin test to the nucleo-protein of Brucella Abortus. The blood showed negative phagocytosis for Brucella Abortus. Agglutination was negative for typhoid bacilli and for Brucella. The blood culture was negative. The urine was negative. The white cell count was 7,600. The differential showed a slight lymphocytic increase. The tuberculin test was negative. The rest of the physical examination was essentially negative.

The following injections of Brucellin were made: September 20, .2 c.c.; September 23, 0.5 c.c.; September 26, and September 30, 1.0 c.c. A definite improvement in the patient's general condition showed after the second injection. There was disappearance of the weakness and fatigue. There was no more rise intemperature. The appetite improved. There followed rapid resumption of all activities and very satisfactory gain in weight. Ten days after the last injection of Brucellin, the patient's blood showed high phagocytic activity for Brucella Abortus in vitro.

Case 4.—Patient R. M., aged six years, male. The approximate date of onset was May 1, 1932. The presenting symptoms were—increasing inactivity, weakness, ease of fatigue, restlessness, and irritability, chilliness, general aching, and loss of appetite with an increasing constipation. Intermittent mild fever developed and he slowly but definitely lost weight. This condition continued, with mild remissions and exacerbations throughout the summer months, until September 1, 1932. During this time his diagnosis had been "intestinal flu." He was skin tested with nucleo-protein of Brucella Abortus on September 1. This was very positive. His blood showed no phagocytic activity for Brucella Abortus. The agglutination tests for typhoid bacilli and Brucella Abortus were negative. The urine showed a very slight trace of albumin, otherwise was negative. The white cell count was 6,500 with a relative lymphocytic increase. The rest of the physical examination was essentially negative.

The following injections of Brucellin were made: September 3, .2 c.c., September 6, .5 c.c.; September 9 and September 12, 1.0 c.c. Following the first injection there was a definite increase in fever, but following the other three there were no symptomatic or febrile reactions. The patient began to improve in every way following the first injection of Brucellin. There was definite increase in appetite. The lassitude, inactivity, ease of fatigue, restlessness and irritability rapidly disappeared. Within two weeks after the beginning of treatment the patient had returned to the normal activities of a boy of six years of age. Ten days after the last injection of Brucellin his blood showed a high phagocytic activity for Brucella Abortus. The general improvement and good health has continued to the present date.

Case 5.—Patient E. S., aged eight years, male. The approximate date of onset was June 1, 1931. At this time there was noted a rapidly developing lassitude and ease of fatigue. He steadily lost weight. Intermittently he complained of headache, backache, and abdominal pain. There was an irregular though daily elevation of temperature. At times all symptoms were markedly increased in severity. After a period of relative good health a remission would obtain during which time all the above symptoms would return with increased severity. Exacerbations and remissions occurred at various intervals until May, 1932, at which time his tonsils and adenoids were removed. This was again followed by a period of freedom from symptoms until the time of the present examination. During the eighteen months of his illness he was variously diagnosed as—sunstroke—fractured skull—epidemic meningitis—brain tumor—tuberculosis—worms—appendicitis—intestinal flu—and septic tonsils and adenoids. The patient was skin tested with nucleo-protein on October 20. This was very positive. Phagocytic activity for Brucella Abortus was very low. Agglutination tests for typhoid bacilli and Brucella Abortus were negative. The tuberculin test was negative. White cell count and differential were normal. Urine was negative. The physical examination was otherwise normal. The patient, however, was highly emotional, apprehensive and excitable.

The following injections of Brucellin were made: 0.3 c.c., October 21; 0.5 c.c., October 24; 1.0 c.c. on October 27 and 30. Definite improvement was noted in the patient's mental and physical condition after the first two injections of Brucellin. Ten days after completion of treatment the blood showed a high phagocytic activity for Brucella Abortus. This general improvement has continued to the present time. There has been no recurrence of any of the symptoms aforementioned.

Case 6.—Patient B. M., aged eleven years, female. Approximate date of onset was July 1, 1932. She gave a history of dizziness, weakness, sweating, chilliness at times, and general aching. She complained of headache, backache and abdominal pains. There was loss of appetite, but a persistent diarrhea. An intermittent fever developed. She suffered

severe night sweats. There was nausea and vomiting at intervals. She rapidly lost weight. She showed an emotional instability.

On August 15, 1932, she was skin tested with nucleo-protein of Brucella Abortus. This was extremely positive. All symptoms were aggravated by the intradermal test. Her blood at this time showed negative phagocytic activity for Brucella Abortus. Agglutination tests for typhoid bacilli and Brucella Abortus were negative. Blood culture was negative. The urine showed a slight trace of albumin. The white count was 9,800 with a relative lymphocytic increase. Tuberculin test was negative.

The following injections of Brucellin were made: August 24, 0.2 c.c.; August 27, 0.5 c.c.; and 1.0 c.c. each on the 30th of August and the 3rd of September. Following the first four injections of Brucellin the patient was much improved but still tired easily and showed lack of pep. On September 13 her blood showed only a slight increase in phagocytic activity against Brucella Abortus. On September 18 and 21, she was given 2.0 c.c. of Brucellin. Ten days later the blood showed high phagocytic activity. Rapid improvement followed, which has continued to the present time.

DISCUSSION

1. We believe that the incidence of Brucella Infection is much more common in children than is suspected—also that a great many of these children are being persistently misdiagnosed as—influenza or "intestinal flu"—summer complaint—rheumatic fever—malaria—tuberculosis—adenoid and tonsil infection — gastro-enteritis — worms — teething—and "what not."

2. We desire to urge that children presenting a clinical syndrome similar to any of the above, and in whom these other common diseases can be positively ruled out, be given the nucleo-protein skin test (Huddleson) and their blood tested for phagocytic activity against Brucella Abortus. If their blood cells show lack of phagocytic activity, we believe they should be given intramuscular injections of Brucellin until their cells show high phagocytic activity for Brucella in vitro.

3. An agglutination test should be done with Brucella Abortus in every case, but if the test is negative, it does not necessarily follow that the patient does not have undulant fever. Other tests are necessary to positively eliminate this disease. These tests are the intradermal and opsono-cytophagic test.

4. It is hoped that this report will encourage practicing physicians to avail themselves of this method of diagnosis and treatment whenever the occasion and need presents.

I wish to thank Doctor I. Forest Huddleson of the Michigan State College for his most valuable help in the preparation of this study. I also wish to thank him for his suggestions and advice in the treatment of these little patients.

REFERENCES

1. Evans, A. C.: T. Infect. Dis., 22:580, 1918.
2. Hardy, A. V., Jordan, C. F., Borts, I. H., and Hardy. Nat. Inst. Health Bull., 1930, p. 158.
3. Simpson, W. M., Jour. Mich. State Med. Soc., 31:639, 1932.
4. Hubbard, J. P.: Jour. Ped., 1:464, 1932.
5. Anderson, E. D., and Pohl, J. F.: Am. Jour. Dis. Child., 42:1103, 1931.
6. Kohlbry, C. O.: Minn. Med. J., 12:414, 1929.
7. Williamson, B.: Brit. Med. Jour., 1:748, 1931.

SIGNIFICANT HEMORRHAGIC RETINAL LESIONS IN BACTERIAL ENDOCARDITIS (ROTH'S SPOTS)

William Brown Doherty and Max Trubek, New York, call attention to the fact that the characteristic elliptic retinal hemorrhages with white centers occur in the bacterial endocarditides, acute and subacute, and in the severe anemias, notably pernicious anemia. The discovery of this lesion, because of its significant appearance, may aid in early diagnosis. The lesion occurs in both eyes, with a little greater frequency in the left eye. The lesion has little prognostic value in subacute bacterial endocarditis; in several instances it had appeared and disappeared in successive crops many months before death. The authors suggest that the designation "retinitis of endocarditis" might after further study be appropriately applied.—*Journal A. M. A.*

GALLSTONES IN INFANCY

A. A. Skemp, La Crosse, Wis. (*Journal A. M. A.*, Jan. 10, 1931), relates the case of a child, aged 17 months, who took sick with convulsions and died about six hours after the onset of the convulsions. Permission for a postmortem was obtained and an extensive pneumonic process involving the lower part of the left lung was found. The abdomen was normal except that the gallbladder was slightly distended and contained stones. The gallbladder contained numerous stones, the largest from about 5 to 10 mm. in diameter. Prior to its death, the child had had no digestive disturbances and had all the appearances of a healthy and vigorous child. It had been breast-fed and from the time of its weaning until its death there was nothing unusual in the dietary.

AN IMPORTANT CHEMO-THERAPEUTIC POSSIBILITY

THE LIBERATION OF NASCENT IODINE BY ROENTGEN-IRRADIATION AFTER THE INTRAVENOUS ADMINISTRATION OF AN IODINE COMPOUND

BOLAND HUGHES, M.D., and ARTHUR BINZ, Ph.D.*
BERLIN, GERMANY

In 1929 new organic iodine compounds were synthesized in which the iodine was loosely bound to the molecule. Most of the compounds were unstable and toxic. In the investigation of many of them, experimental animals, having been given a compound intravenously, were subjected to diagnostic X-ray exposures for evidence of iodine accumulation in the large parenchymatous organs. It was observed that a solution of one of the compounds which had been accidentally exposed to the action of X-rays, became brown in color, and that the change was due to the liberation of free iodine.

The idea was then conceived by one of us (Hughes) to synthesize an organic chemically stable iodine compound of low toxicity, from which nascent iodine or an active chemical radical could be liberated by roentgen-irradiation after its intravenous administration. The purpose was not to produce a compound whose secondary radiations would have therapeutic value or enhance the value of the irradiation itself. It was proposed rather to obtain a chemically stable pharmacologically inactive compound per se, which under the influence of external forces, such as roentgen-irradiation, might undergo alteration of its chemical structure such as liberation of nascent iodine or an active chemical radical. In this manner it might become possible to control by external forces localized therapeutic effects after parenteral administration of therapeutically inert compounds.

Such a compound should fulfill the following requirements:

1. Low toxicity, permitting the intravenous administration of large amounts so that the concentration at any one particular point in the organism would permit the liberation of an adequate amount of nascent iodine.
2. High solubility.
3. High iodine content.
4. Stability of such a degree that irradiation within tolerable limits would induce the desired change.

Our study has consisted in investigation of 109 organic iodine compounds, many of which have been newly synthesized. The purpose of this preliminary report is to recommend one of these compounds for further investigation, since it seemed to fulfill the above requirements. Future reports will communicate additional information concerning the many and very complex problems of this therapeutic possibility.

*Editor's Note: The editor is indebted to Dr. Robert E. Cumming, urologist of Detroit, for this brief but valuable preliminary report of important research work of Dr. Hughes and Dr. Binz of Berlin, Germany. Dr. Binz was at one time an assistant of Dr. Erlich. Dr. Binz was present at the annual meeting of the American Medical Association in Detroit, where he discussed several papers in the section on Urology. Dr. Hughes has spent three and one-half years in Germany but is in the United States on furlough and plans shortly to return to Germany to resume his research work. This brief paper is an abstract of a preliminary report on the subject which was presented before a medical group in Detroit on December 16, 1932, by Dr. Hughes.

ROENTGEN DIAGNOSIS OF SMALL PLEURAL EFFUSIONS

In a new position for roentgen examination of pleural effusions, presented by Leo G. Rigler, Minneapolis (*Journal A. M. A.*, Jan. 10, 1931), the patient lies on the affected side, the film being in front, the X-ray tube behind. Small effusions, which are entirely invisible in the usual positions, may be readily detected in this lateral decubitus position. Pleural thickening may be distinguished from a small pleural effusion by the use of this position. With change in position of the thorax, a free pleural effusion may extend into the interlobar fissures, giving the appearance of an encapsulated interlobar effusion. This phenomenon may also be used to differentiate fluid from pleural thickening.

TREATMENT OF CHOREA BY INDUCTION OF FEVER

Lucy Potter Sutton, New York, has treated twenty-four choreatic patients with intravenous injections of typhoid-paratyphoid vaccine as a means of producing fever. The results thus far have been good. There has been prompt cessation of the symptoms, and the course of the disease has seemed to be greatly shortened. In the cases reported the average duration after treatment was started was from eight to nine days. This treatment has been much more satisfactory than any other used at Bellvue Hospital on the Children's Medical Service. It appears to have definite advantages over phenyl-ethyl-hydantoin.—*Journal A. M. A.*

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

TULAREMIA

Tularemia is assuming more and more importance as a public health matter in the state of Michigan. In 1928 there were two cases reported, both of which were in employ of Detroit markets and contracted from rabbits shipped in from outside the state. In 1929 the disease was reported from Alpena, in a boy who had dressed a local rabbit which he killed while hunting. In 1930 a case was reported from the University Hospital at Ann Arbor in a young man who had handled a rabbit claimed to be domestic and obtained from outside the state. In 1931 there were seven cases reported from various sources and various localities in the state. Several of these were evidently from Michigan wild rabbits.

During the year 1932 there were reported seventeen cases from the following localities:

Coldwater	2
Crystal Falls	2
Detroit	2
Grand Rapids	1
Harbor Beach	1
Iron Mountain	2
Ironwood	1
Kingsford	1
Lansing	1
Ludington	1
Sault Ste. Marie	1
Three Rivers	2

Information as to the source was not found in every instance but there is good evidence that more than half the cases were due to Michigan wild rabbits. Data are still being collected on some of them.

Certain information is given here for the benefit of those who are not familiar with the disease. The causative organism is called bacterium Tularense and was first isolated by Doctors McCoy and Chapin of the U. S. Public Health Service. This discovery was made by them in 1911 during a study of an epidemic in Tulare County, California, that had the appearance of the plague. The reservoir of infection appears to be rabbits and squirrels of certain varieties; Jack rabbits, cotton tail rabbits, snow shoe rabbits, ground squirrels and various other animals have been found to be infected with this organism. The mode of transmission may be either by direct contact with the infected animal, in skinning or dressing, or by the bite of certain insects, deer flies or wood ticks. The organisms must enter the body through the skin or the mucous membrane. A visible cut or abrasion does not appear at all necessary. When the infection comes through the skin a characteristic ulcer is always formed at the site of the infection. The incubation period is relatively short, frequently of not more than a day or two. The onset is sudden, consisting of inflamed lymph channels draining the area of the ulcer. Lymph glands in the chain are inflamed and enlarged, sometimes to a great size, and frequently break down.

The disease is not highly fatal, most authorities reporting from three to five per cent case fatality. There is usually a long drawn out convalescence. Laboratory diagnosis may sometimes be made by culture of the blood during the first few days. A more common and easier method of laboratory recognition is the agglutination test, the agglutinins usually appearing about the end of the first week.

Not much in the way of treatment has been found to be satisfactory. Acriflavin, mercurochrome and other disinfectants of the blood stream have been used and reported as somewhat successful by a few physicians.

The most common clinical form is the ulcero-glandular which has been referred to above. Other clinical forms are the oculo-glandular, in which case the port of entry is through the conjunctiva, the glandular type where there is no gross ulcer at the point of entry, and the typhoid type.

The primary lesion in the ulcero-glandular type is a reddish papular ulcer. Often this ulcer appears on the fingers or hand. This is followed by a red streak up the arm and the gland involvement. There are general symptoms of infection of the blood stream by bacteria, such as chills, fever, sweats, aching in the back and legs and prostration. Once the attention of the clinician is directed by these symptoms to the possibility of tularemia, diagnosis can be made easily by taking a sample of blood similar

to that used for Wassermann test, and having an agglutination made in a competent laboratory.

C. D. B.

SEROLOGICAL CONFERENCE

The eleventh meeting of the Conference of Bacteriologists, Pathologists, etc., of Michigan, Ohio and Indiana was held at the Hotel Olds, Lansing, Friday, November 11, immediately following the Twelfth Annual Public Health Conference. This organization consists of medical scientists from the three states mentioned and meets about three times a year. Meetings are held in Detroit, Lansing, Indianapolis and Lafayette, Indiana.

The meeting, this time, was given over to a discussion of the serum diagnosis of syphilis and was based in part upon the results obtained with check sera sent out to 52 laboratories by the Michigan Department of

Dr. M. B. Kurtz of the Michigan Department of Health presented the results obtained with check serums. Dr. N. W. Larkum of the same department discussed quantitative methods and Dr. John F. Norton of the Detroit Department of Health discussed the standardization of complement fixation reactions. Dr. R. S. Dixon of Detroit discussed serological reactions from the standpoint of the clinician and his paper was discussed by Dr. R. L. Kahn of Ann Arbor and Dr. H. E. Cope of Detroit.

At this meeting it was announced that results of serological tests would be reported as positive, negative or doubtful by the Michigan Department of Health after February 1. There was ample discussion of methods and their significance and a committee was appointed to consider plans and methods for securing greater uniformity in serological tests in Michigan to unify aims and standardize procedures.

N. W. L.

CHILD HYGIENE

The series of child care classes taught by Julia Clock, R.N., in Huron County has been completed, and Miss Clock will conduct a breast feeding campaign in Clinton County, exclusive of St. Johns, before starting a series of child care classes in that county.

Dr. Ida Alexander is conducting a series of women's classes in Ionia County. These classes were begun on November 17 and to date there has been an attendance of 1,005 women. Dr. Edna Walck is conducting a similar series of classes in Kalamazoo County, begun November 29, at which there has been an attendance to date of 849 women.

The nutrition work which Bertha Wellington was just beginning in Ionia County was interrupted by an automobile accident in which Miss Wellington suffered rather serious head injuries.

Child care classes in Muskegon County are being taught by Deane Rinck, R.N., following a similar series of classes in Cheboygan County. The class work in Presque Isle and Alpena Counties carried on by Bertha Cooper has been finished and Miss Cooper has begun a series of classes in Saginaw County.

Department physicians who are Shick testing children in Lapeer County are being assisted by Esther Nash, R.N., and Annette Fox, R.N.

L. R. S.

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
641 David Whitney Bldg., Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 641 David Whitney Bldg., Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

FEBRUARY, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

PERIODIC HEALTH EXAMINATIONS

Probably there are few subjects of greater concern to the medical profession at the present time than that of periodic health examinations. A great deal has been written urging the importance of the procedure but the physician is often left up in the air in regard to what should constitute a physical examination. In other words how thorough and searching should the examination be? We are fortunate to be able to print in this number of the Journal papers by two leading internists of the state, namely Dr. Charles G. Jennings and Dr. Hugo A. Freund, both of Detroit. These addresses are two lectures that were recently delivered before Wayne County physicians at the Herman Kiefer Hospital. Dr. Jennings' paper is largely introductory to the subject, emphasizing the fact that it takes a long time to put over a good idea. His paper is an interesting account of the history of the movement towards periodic physical examinations. In the City of Detroit Dr. Jennings held a position on the Board of Health in 1904. Referring to an effort on the part of the Detroit Board of Health to put in force a system of health inspection in the schools, we have quoted the reception the idea was accorded by one of the daily papers of the time: "It cost the taxpayers last year $2,500 for this perfectly useless service, a service that would be ridiculous were it not an abominable and intolerable piece of impertinence." Detroit, as well as other municipalities, has travelled a long way in the last twenty-eight years, since it would be almost impossible for a sane newspaper to make such comment at the present day even over infinitely greater expenditures in the conservation of health.

Dr. Jennings raised the question as to what department of medicine the making of physical examinations belongs and answers his own question by stating emphatically that the field is essentially that of the family physician. There seems to be a wide agreement with Dr. Jennings on this score. We have specialization enough, no need of introducing a specialist on routine health examinations. Dr. Jennings goes on to say that there is nothing in a health examination that a physician competent to practice curative medicine is not qualified to give. "It differs," he says, "in some ways from the examination for established and recognized diseases. It is a search for the evidence of pathological tendencies and unsuspected incipient departures from the normal. It demands a complete medical life history and a painstaking physical examination." Dr. Jennings in his paper lists, under a number of headings, the items which the examiner should consider.

Following Dr. Jennings, Dr. Hugo Freund goes into detail in the matter of physical examinations even to the extent of showing how they should be done. About the only thing presumed is ability on the part of the examiner to perform such opera-

tions as oscultation, inspection, palpation, percussion and the necessary laboratory examinations.

"HOSPITAL AID PLAN"

The State Medical Society of Pennsylvania has been approached by the President of the Pennsylvania Hospital Association with a plan which proposes the payment of an estimated sum of $15.00 a year per person on the part of the public, which sum will provide, without additional charge, hospital care in private rooms and all medical, surgical and obstetric care by members of the hospital staff. The patient, it is understood, will have the right to select his physician from the entire group of physicians entitled to practice in the particular hospital. A maximum fee is to be established by the staff and the hospital authorities so as to insure financial solvency. According to the plan, after the family physician of the beneficiary has decided the patient needs bed care, the hospital would have its staff man examine the patient in order to be doubly sure that such care were necessary. At the conclusion of hospitalization the patient would be returned to his family physician with a written report. "There of course would have to be some method of soliciting members to join the fund, but the management would not in any way induce patients to go to the hospital. . . . The plan will increase the income of physicians because it will make private cases out of many cases who now receive their professional care free. . . . Whatever plan is adopted of limiting the fees of physicians is an important one because unfortunately regulated charges might deplete the fund and also wreck it."*

The Board of Trustees of the Medical Society, sitting as the judicial council, took a position on the communication which may best be given in the letter authorized by them in reply to the President of the Pennsylvania Hospital Association:

"As per promise of my letter of September 30, in response to your request your communication regarding the 'Hospital Aid Plan' was presented in full to the members of the Board of Trustees at their meeting October 5, 1932. The plan was thoroughly discussed and a motion embodying the following was unanimously adopted:

"The 'Hospital Aid Plan' as submitted by Mr. John M. Smith, President of the Pennsylvania Hospital Association, is considered unworthy of approval by the members of the Board of Trustees of the Medical Society of the State of Pennsylvania sitting as the Judicial Council, because the proposal is in conflict with the Principles of Medical Ethics governing the membership, as said Principles apply to contract practice—(1) in the solicitation of patients under any guise; (2) in the limitation of the free choice of physician, and (3) as being destructive of fundamental and essential relationship between the private medical practitioner and the patient."

Commenting on the "Hospital Aid Plan" the Pennsylvania Medical Journal contains the following:

"That the public will eventually suffer from any considerable adoption of plans which inject a third party seeking profit or as a socialized meddler between physician and patient is obvious to any one who will think the problem through. The adoption of such plans by reputable organizations and reputable physicians soon leads to imitation by infinitely less responsible parties. No one can say at this time when the unprecedented economic strain on hospitals and practicing physicians alike will be relieved, but we trust that when the history of this era is written the ethical standards and the ideals of the medical profession will be recorded as unchanged."

LIMITING THE NUMBER OF MEDICAL GRADUATES

There is a movement on foot, at least by way of recommendation, by some states to limit the number of graduates of medical colleges each year so that the supply will approximate the demand. It is said that new candidates licensed to practice medicine each year outnumber those removed by death or other causes by approximately one thousand persons. The situation is not so simple as it might at first appear. A number of factors are to be considered when it comes to limiting the number of candidates for the study of medicine. How is the limitation to be affected? The numbers are limited in some schools by advancing the cost of instruction in the way of inordinately high fees. This would presuppose that the student who had access to unlimited means would of necessity be the better candidate for medicine, which of course is not always the case. Often those who would make the best research men as well as the ablest practitioners of medicine are those who have very little means, to whom the doubling of fees would work a real hardship, if not preclude altogether their chances of entering the medical profession. If it were possible to devise some means of eliminating the un-

*These sentences are quoted in an editorial in the December number of the Pennsylvania Medical Journal.

fit and making a judicious selection of those who from the point of inherent ability are fit, we would have an ideal situation. However, it is probably expecting too much of human judgment to hope even that such a judicious selection is possible of accomplishment.

One solution of the problem of over-production of physicians might consist in the elimination of the cultist as well as patent medicines. These items, particularly the latter, appear to bulk large in the matter of the cost of medical care. The cults, however, seem to have their day and cease to be, probably to give way to new ones. The possibility of eliminating the cultist is rather questionable, that is it is more easily suggested than accomplished. Probably after all in the practice of medicine as in everything else the fittest will survive if not hampered by artificial barriers.

TECHNOCRACY*

The word is not in the dictionary. A free translation would be "domination by the machine." As machines are invented or perfected, the nearer we approach the elimination of man power. A self constituted group of engineers (some of the leading names in the world) began ten years ago a study of the possible ultimate effect upon the race of the introduction of labor saving machinery. The active committee of thirty-six engineers has worked steadily for the past year and a half on what has been called, The Energy Survey of North America. The committee has its quarters at Columbia University. It has representatives in almost every important center in the civilized world. The findings and opinions are of unusual interest, emanating from a body of men of such a high degree of technical training. The nature and scope of the research is purely a technological analysis of the forces which affect our social structure. Profits, wages and prices do not enter into the research, which has mainly to do with quantitative determination of physical production and the energy consumption involved in that physical production. The dominance of the machine in industry is due in a large degree to the work of such minds.

Mankind of recent years has worshipped the god efficiency. We are beginning to see our error. A century ago, we are told, one man could produce 25 tons of pig iron each year and one could produce 800 tons of iron ore. In 1929, 20,000 tons of ore was produced per man per year. A photograph of a modern steel mill in full operation, shows, we are told, no human being in view. According to Wayne W. Parrish: "The increase in power has been so tremendous within the past twenty-five years that it is difficult to grasp its full significance as applied to the social structure. For 7,000 years of social history there was no change in the rate of doing work. The human being was the best engine society had.

"Prior to the first quarter of the nineteenth century—just a little over a century ago—our engines of conversion, which were human beings, were the same as those of the Pharaohs. The human machine averaged under 200 pounds in weight and was capable of an output of one-tenth horsepower unit per eight-hour day. Now look what happened. The steam engine was introduced, electric power came into being, and within one hundred years we have multiplied the original output rate of the first, or human, engine by 9,000,000, as expressed in a modern energy transversion unit! But most significant of all is the astounding fact that most of this advance, or 8,766,000 of the 9,000,000 increase, has come within the last thirty years."

* * *

We quote the following paragraphs* which go to show—

. . . that machinery developed in the single decade between 1914 and 1925 enabled one man employed in industry in 1925 to take the place of three men employed in industry in 1914.

. . . that if the S. S. Europa obtained her motive power the way the Spartan admiral Eurybiades obtained his at the battle of Salamis she would have to carry sweep-pullers to the number of 3,000,000 men—or about the total male population of Wash-

*Most of the data for this short paper have been obtained from a series of articles by Wayne W. Parrish in the *New Outlook* for November and December, 1932.

This editorial was written about eight weeks ago. We have given the meaning of the term from the etymology. Interest in the subject has become nation-wide and the term is now used to designate the group of engineers who have undertaken the study. There have been numerous articles and interviews criticizing the idea, but only one attempt (New York Times, January 8th) have we read that checks over the statements, particularly the statistics of the engineer group. Even allowing for some exaggeration of statement, the idea is still worthy the attention and study of serious minded persons. As it stands this editorial is not concerned with any of the proposed solutions of the problem. The price system, so-called, is so old, going back to primitive society, that we have no conception of any other means of satisfying human wants. It is difficult to write articles for lay magazines, on any subject, that are free from the emotional element and the articles on technocracy are no exception to the rule.

*_Fortune_, December, 1932.

ington, Kansas, and Minnesota put together—instead of the engine crew of 180 she now employs.

. . . that whereas Mr. P. J. McCarthy, the famous strong man of the '90's, supported 6,370 pounds of stone to the amazement of the world, no one would so much as turn his head today to see a dinky hoisting engine lift 6,370 pounds of stone sixty feet a minute.

. . . that six or eight men can today control and operate a turbine capable of producing as much energy in twenty-four hours as 9,000,000 men working on eight-hour shifts.

. . . that if 10,000 men had set out to dig the Panama Canal the year the Pilgrims landed, they would not yet have finished the digging of the earth and rock.

. . . that the production of a motor car required in 1929 less than one-third as many man hours as in 1919 and less than one-twelfth as many as in 1904.

. . . that one man operating a modern brick-making machine sends 710 brick makers into other jobs or out to the bread line . . . that one man operating a modern glass-tube-making machine deprives 600 skilled hand workmen of their places . . . that one man operating a new electric-light-bulb machine replaces 10,000 human electric-light-bulb makers . . . that one man in 1930 could make as many needles in a day as 17,000 men in 1830 . . . that a modern Minneapolis flour mill under the control of one man turns out as much flour in a day as 8,000 of Themistocles' millers . . . that modern shoe machinery installed in the shoe industry of Revolutionary days would have driven thirty-nine out of forty shoe makers out of the industry.

. . . that although Caecilious, a freeman under Augustus, was famous among slave-owners of antiquity for his stable of 4,116 head, an equivalent total horsepower (411.6) is owned during the course of his life by almost any small car owner of the present day who trades in his old Ford every two or three years for a new one.

. . . that if the 1929 U. S. wheat crop had been grown in 1829, 6,000,000 men using the best 1829 equipment would have been required to prepare the ground for it and sow it . . . whereas 4,000 men using the best 1929 equipment could have done the whole job.

. . . that in one decade (1920-1930) one manufacturer (General Electric) created new machinery capable of producing four times as much man power (160,000,000) as the total wage-earning population of the U. S.

The fact that machines have succeeded in producing superior goods and better service than ever possible from the hands of man or woman, precludes the return of the human element to industry in a degree to affect in any material way the unemployment situation. As an example the introduction of the dial telephone has not only meant the elimination of workers but it has also meant a perfect service to the telephone user.

The articles* referred to mention inventions just in the offing that will further precipitate unemployment to greater depths. Take the simple matter of the safety razor blade. "The technologist can easily produce a blade with a tungsten carbide edge on a steel wafer base at just 20 per cent additional cost of the blade today. But the blade would last a lifetime or longer. The razor blade industry could quickly supply the nation with these lifetime blades, but the plants would have to shut down almost immediately. After a few weeks the demand for blades would be almost non-existent. The plants are open today only by marketing a product that needs constant replacing." Other improvements mentioned affect the paper (news print) industry, the automobile, the clothing industry all in the direction of greater durability and permanency, which in turn eliminate the human element from industry.

* * *

It has been repeated many times that depressions have a way of pursuing a cyclic course with good times, therefore from a long perspective of history we might assume that the present depression will sooner or later (sooner everyone hopes) come to an end. There have been definite causes in the past for the historic depressions and definite causes for the emergence therefrom. The present economic and social condition in which the world finds itself is, however, in one respect unique. The tendency, accelerated since the war, has been to depose man power by the invention of so-called labor-saving machinery. This has given us a new *involuntary* leisure class. The dominance of the machine in industry has resulted in the supply of world commodities out of all proportion to the capacity of the world to purchase them. So that at last we have learned that machines are in many instances superior to man in producing objects and also profits. But the time has come when, in accordance with the law of diminishing returns, it has almost ceased to produce profits for reasons apparent to everyone. The machine in turn becomes a liability to its owner. It is a poor prospective buyer for the commodities it produces.

If the depression is to lift, what will be the factors that will bring about good times? There is little use in hoping blindly that something somehow may turn up. It is our belief that the same kind of expert guidance is needed, of a quality equal in every respect to the engineering genius which produced the machine age. Through engineering skill in its broadest sense man has acquired a mastery over nature. Man has learned to

*Loc cit.

control the forces of nature, but when it comes to industrial statesmanship we are sadly behind. It is not long since the forces which have meant so much for the satisfaction of human desires were within man's power. At present it would seem that they have gotten beyond his control. He is in the position of the boy playing with matches. He has started a conflagration that has got beyond him, or he has taken chances in his boat above the rapids not realizing the speed of the current that is wafting him to his destruction.

Man has been defined as a tool-using animal. He has become, however, the servant of the tool, which in turn has thrown him into the discard when it has become automatic.

* * *

Wise political guidance would undoubtedly tend to mitigate the situation in which the world, and particularly our own country, finds itself. It is a stock argument of the protectionist that the lowering of the tariff would expose American labor to competition with cheap European labor. It is not so much a matter of European labor competing with American labor as European labor competing with the American machine. And here the odds are against foreign labor. Tariffs reciprocally lowered would tend to afford us an outlet for our overproduction but the result would not make for an ideal solution of our unemployment problem if the data presented are true.

The conservative *Saturday Evening Post* is hopeful. "America has been wearing out," comments the Post, editorially. "It needs everything, from a new automobile to a new pair of shoes. First, replacements must be made all down the line; then more help will be wanted; then mounting wages, higher price levels and a sane prosperity will follow." But why is America wearing out? The answer is simple. Non-employment, the result of highly mechanized industry, has deprived American workers of the means for repair and replacement and as time goes on purchasing power becomes less and less.

As physicians we have occasion to believe that the available supply of money in possession of many persons has all but vanished. It is evident that a condition of impecuniosity exists among patients all over the United States. How is any sudden demand to start the factories? The demand is already here and has been for many months.

We are reminded of the man who said there were five reasons why he did not fire his gun and went on to enumerate them. In the first place he had no ammunition. "Never mind the other reasons," replied his companion. So far as the causes of the depression are concerned, when we mention the great fact of the displacement of men by the automatic or near automatic machine the numerous other factors seem comparatively insignificant.

The fact that the articles mentioned appear to have attracted the attention of a number of our members has prompted this editorial. The best way to meet a situation is to try to understand its nature and magnitude and then act in accordance with our best judgment. It does little good to hope blindly for prosperity just around the corner. Many adjustments and perhaps modification of our course in life will be necessary to meet conditions which we are unable to change.

A PLEA FOR PROFESSIONAL UNITY

Elsewhere in this number of the JOURNAL appears an address by Dr. Burton R. Corbus, Chairman of the Council of the Michigan State Medical Society, delivered before the Kent County Medical Society. He speaks of the increasing economic pressure under which medicine is laboring, and of the numerous plans proposed for the relief of the alleged difficulties of both patient and physician. In some of these proposed measures he discerns socalistic tendencies in spite of the inadequacies of similar plans as applied in some European countries. As to the necessity of making a high quality of medical work generally available, all are agreed. The profession of this state has not lagged behind in the matter of post graduate education sponsored by the University, and in public health education through the public forum and more recently by radio. Post graduate instruction has been brought virtually to the door of the doctor and health education to the door of the citizen.

Dr. Corbus referred to the efforts of the Michigan State Medical Society to study medico-social problems as seen in the study of the hospital situation a few years ago, and in the present very thorough study being made by the special committee on survey

of health agencies. He noted also the exhaustive study by the public relations committee of Kent County. The speaker refers to what he considers improper emphasis on the cost of medical care which is too often interpreted as physicians' fees instead of support of adequate medical service of high quality. Hardly a third of the total cost of care of illness goes to the physician. The average income of the doctor even when times were good was low, as many of the older men in the profession know, due to the success of preventive medicine in all but eliminating many infectious diseases; so now medicine is largely concerned with diseases of adults and of old age.

In periods of unemployment employes and workers alike look to the doctor to carry the burden of sickness and to the state to carry the burden of feeding and housing. We must, Dr. Corbus contends, guard ourselves against plans hurriedly conceived, many of which tend towards commercialism and the violation of the ethics of the profession which has had such an important survival value. The profession is apprehensive of any attempt to interfere with the personal relations of physician and patient which will ultimately prove of disadvantage to the patient.

In conclusion he pleads for unity in the profession and a recognition of leadership based on a thorough study of the situation. We believe that various factors, among them the study of the subject of medical care by the five year committee, have done a great deal towards promoting a united front that has seldom been the attitude of the profession. It has been proven that the doctor is a very important personage in any community. He will be wise if he accepts this evaluation of himself and will study the situation in which he finds himself with that absence of emotion that he would apply in investigating the symptom-complex of a patient.

AFTER THE TUMULT AND THE SHOUTING DIES

Two months have elapsed since the appearance of the final report of the Committee on the Cost of Medical Care. The kind of reception it has been accorded has depended upon the attitude laymen and professional men alike have held regarding the principle of socialization. Those of us whose youth was molded in the late Victorian years were nourished on the doctrine of *laissez faire*. We have learned to be content with our lot, be it small or great, so long as it is limited by our ability only. It is not in our stars but in ourselves that we are underlings. We had come to feel that the government is best that governs least. Hence socialization schemes have never got very far with those whose feet stood upon the exit of the nineteenth or upon the threshold of the twentieth century.

A large sum of money, however, has been spent and a great amount of work in the nature of fact-finding has been accomplished. The data collected by the committee are valuable and should be utilized by both the medical and lay press when occasion offers, whatever may be our reaction towards the committee's conclusions.

Then again we sometimes wonder if "our stars" haven't more to do about the position in which the world is placed, than we. The world is being dominated by a determinism which it seems impossible to direct, let alone to control. If the domination of the machine is to continue to eliminate man from industry and thereby to increase the number of dependents, what is to be done? The unemployed must be fed. The great body of indigent sick and underprivileged must be cared for. If the medical profession are to perform their ever-increasing burden they must be in a position to meet the strain, which cannot be done on empty pocketbooks. As much as we doubt the wisdom of socialization we have no real panacea to offer, except that the medical profession continue to meet the exigency as they have in the past with as enlightened and capable leadership as possible.

It is natural that socialization should begin with medicine. The demand for medical care is next in importance to food in the struggle for existence, and it is universal. The so-called *dole* is socialization applied to such necessities as food and shelter.

Regarding the item of cost of medical care, "The Committee recommends that the costs of medical care be placed on a group payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods. This is not meant to preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, *i.e.*, compensation of wage-

loss due to illness, if and when provided, should be separate and distinct from medical services."

With millions of unemployed, almost any insurance plan that involves the payment of premiums or dues of any kind, is out of the question; so the matter of cost of medical care falls back on taxation, and this is state medicine replacing the private practice of medicine. The clause, it will be noted, does not "preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method," which means that having paid not only for his own medical care through taxation, and that of many indigents besides, the property owner may call in the service of a private physician and pay him individually when medical services are required for himself or his family.

A SUGGESTION FOR MEDICAL CARE OF THE INDIGENT

Dr. James A. MacMillan of Detroit comes forward with a suggestion that appears to us worthy of the serious consideration of county medical societies and civic officials. Instead of the congested clinic that prevails today in the majority of our large cities, Dr. MacMillan would have the same—or better—system of investigating the needs of the so-called indigent patient, and have him referred to physicians in private practice to be cared for in their offices or in the patient's home according to his needs. The clinic physician as is commonly understood gives his time to some clinic organized as a hospital out-patient department. Why could he not as well take care of the patients in his private office? The city might be "zoned" or divided conveniently so as to render visits over as short a distance as possible both on the part of the patient to the doctor or the doctor to the bed-ridden patient. Doctors could then get the clinical experience which appears to be one object of attendance on out-patient departments of hospitals. An efficient social service could see that in some cases physicians might be reimbursed by relatives or others interested in the condition of indigent patients. According to Dr. MacMillan's suggestion the expense of laboratory tests and medicines might be borne as now by the city but made by private clinical and X-ray laboratories at a nominal cost.

This plan would be an advantage to the indigent patient in as much as he would be under a personal physician and the physician would have the advantage in the way of working up a practice that might eventually become remunerative in as much as indigent persons are not always indigent; for after all, in spite of the altruism of the profession, doctors are dealing, so far as their personal necessities are concerned, with a public that shows very little altruism to them.

THE DEADLY DOLE

"Human experience fully supports the report based on investigations by the Department of Psychology of the University of Vienna and the Austrian Economic Psychology Society, that prolonged unemployment brings on intellectual apathy and lack of interest in life—where the unemployed are relieved from immediate anxiety by the dole. Nevertheless the report is full of immediate interest.

"The investigators, using an Austrian town as a laboratory, found that its people though given no more than enough to support existence seemed to have lost all initiative and energy. There were books in the town library but the circulation had fallen off 45 per cent. The kindergarten was free, but empty. Even the elections were neglected. The people seemed to have lapsed into the condition of half comatose indifference often found among caged animals and birds.

"It is likely that this picture is an extreme one. Certainly there are communities and individuals in other countries under dole, that do not sink into so sad a condition of inertia. But the differences are differences of degree; and we find the same sort of thing in our own City among many of those on the Welfare or housed in places like the Fisher Lodge. Cared for in their extremity, all but those with the strongest characters grow lazy and pauperized, and frequently resentful of anything that threatens their aimless existence."

So comments The Detroit Free Press editorially on the principle of giving something for nothing. The experience of the Austrian town places the matter of the dole in the category of medical subjects—at least that department of medicine which is included under psychiatry. The remedy is not an impossible one. There is always plenty of work to do. The objects of municipal charity should be prevailed upon to perform some service either for the city or for the individual taxpayer, who through taxation, often to the breaking point, makes it possible for the recipient of the dole to live. The larger industrial cities of the state during prosperous times have attracted a class of worker with no special training. Within a few hours he has learned to motivate the near-automatic machine of which

he virtually became a part. The days of craftsmanship when workmen wrought with miser care, have passed into history. We have in the place of the skilled intelligent worker a large number of persons with no special training, all of which goes to aggravate the unemployment problem. These, however, might at least earn their sustenance under competent leadership. We suggest work as a therapeutic measure.

OPTIMISTS

(The Medical Journal and Record)

"Scientists in the last few years have been telling us how healthy we are. This is especially true of the scientists who are paid by the government and who do their figuring on a comfortably filled belly. We believe that one of the outstanding gentlemen who has been making using of these so-called statistics is called Dr. Wilbur. We do not like to dispute his word in any way, especially when he has done his best to tell us that the depression is very healthy for us. But we are certain that he has not put himself on a diet that many of the victims of the depression had to put up with, nor has he been without food or shelter. He just studied figures. He did not look into the broken years or the crushed hopes. He did not take into consideration psychological health. He did not take into consideration a gradual breaking down of resistance. He did not take into consideration undernourishment of children who survived, but who became a prey to epidemic and diseased conditions. We are of the opinion that the next few years will show a terrible aftermath as the result of our present situation—economic, social and psychological. We are wondering if our friends are as optimistic now that the election is over and the question is becoming a scientific one rather than a political one."

OBITUARY

DR. JOHN C. BRANCH

Dr. John C. Branch died at his home in White Cloud, Newaygo County, Michigan, December 26, 1932, after an illness of six months.

Dr. Branch was born in Watervliet, Berrien County, Michigan, June 3, 1852, eighty years ago. He graduated from the Kentucky School of Medicine, later the Louisville University in 1895; then practised medicine in Wayland, Michigan, for four years.

He then moved to White Cloud, where he had been in active practice until about six months previous to his death.

He was an active member of the Newaygo County Medical Society, the Michigan State Medical Society and the American Medical Association.

DR. W. K. LIM

Dr. W. K. Lim, for more than twelve years associated with Dr. Alexander Blaine at the Jefferson Clinic, Detroit, died on December 30, 1932, at the Jefferson Clinic and Diagnostic Hospital after a week's illness of pneumonia. He was born on the Island of Sumatra thirty-nine years ago. Dr. Lim received his Bachelor of Arts degree at Ohio University, where he was elected a Phi Beta Kappa student. He came to Detroit and enrolled in the Detroit College of Medicine and Surgery and graduated in 1921. Dr. Lim's specialty was X-ray. His was a research type of mind. He loved his work and devoted almost all his time to it. He was a member of the Detroit Roentgen Ray and Radium Society, the Radiological Society of North America, the Wayne County Medical Society, the Michigan State Medical Society and American Medical Association. Dr. Lim won the respect and good will of everyone whose good fortune it was to know him. He is survived by his widow Katie Moy Lim, one son, Bien Tek, four years old, and a daughter, Chia Ming, fourteen months. Dr. Lim married a daughter of a Chinese physician in Washington in 1927.

DR. RANSOM MOSS

Dr. Ransom Moss of Pontiac died on December 29, 1932, at the age of 78. He had practised in Pontiac for the past twenty-five years. Following his graduation from the Medical School of the University of Buffalo in 1889, he practised in Gowanda, New York, for thirteen years. He then moved to Port Huron, where he practised until 1909. He is survived by his widow and two daughters. Dr. Moss was a member of the Oakland County Medical Society, The Michigan State Medical Society and American Medical Association.

INDISPENSABLE USES OF NARCOTICS

Horatio C. Woods, Jr., Philadelphia, prefaces his enumeration of the therapeutic uses of narcotic drugs with the statement that there are certain facts concerning opium or cocaine and their derivatives that should be borne in mind. First, they are valuable therapeutic agents; to banish them from the materia medica is to work an unjustifiable hardship on suffering humanity. Second, the habitual use of them is a real menace to the welfare of society, which should be combated with every weapon available. Third, the injudicious use of these substances as remedial agents has in many instances resulted in the formation of a habit. With a knowledge of these facts the conscientious physician will not hesitate to use them when necessity demands but, on the other hand, will try to avoid their employment whenever possible by the application of less dangerous measures.—*Journal A. M. A.*

MEDICAL HISTORY ON THE RADIO

On January 8, the House of E. R. Squibb and Sons presented the first of a series of half hour radio programs in keeping with the splendid traditions of its founder.

This half hour of entertainment is on the air every Sunday over the Red Network of the National Broadcasting Company Chain, at 4:30 P. M. New York time. It features Frank Black and his Orchestra, the Revelers, and as the high spot a dramatization of gripping moments from the history of medicine.

These presentations of music and interesting dramatic episodes are designed to appeal to almost every type of radio listener. The announcements emphasize that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness and the protection of health. Impressive reasons are also mentioned as to why the use of the family doctor is a good way to keep down the costs of competent, sympathetic and understanding general medical care.

Minutes of the Mid-Winter Session of the Council of the Michigan State Medical Society

1. Pursuant to the official call, the Council of the Michigan State Medical Society convened in the Statler Hotel, Detroit, at 9:30 A. M., January 12, 1933, with Chairman Corbus presiding and the following Councillors present:

B. R. Corbus, Henry Cook, J. E. McIntyre, P. R. Urmston, J. D. Bruce, Henry Carstens, Richard Burke, A. S. Brunk, C. A. Neafie.

Absent by reason of illness:

Harlen MacMullen, T. P. Treynor, T. F. Heavenrich, George C. Hafford.

Present also:

President Robb, President-Elect George L. LeFevre, Treasurer Wm. A. Hyland, Editor J. H. Dempster, Chairman of the Medico-Legal Committee Wm. J. Stapleton, Jr., Chairman of the Committee on Health Survey Wm. H. Marshall, F. C. Warnshuis, Secretary.

There were also present at various times during the session Ex-President Angus McLean, Herbert E. Randall, and L. J. Hirschman.

2. Upon motion of Councillors McIntyre-Powers, the Minutes of the Executive Committee as published in the Journal were adopted and made part of the official records of the Council.

3. Dr. Wm. H. Marshall and Nathan Sinai of the committee on the Survey of Medical and Health Agencies presented a valuable report of the progress and activities of the committee. By reason of slowness of returns on certain questionnaires, and additional investigation activities, the committee reported that they would be unable to complete their labors and formulate a complete report until some time between March 5 and 15, 1933. And, therefore, they would not be able to present a report to the House of Delegates until some time between March 15 and 31, 1933. The committee reported, however, that beginning the latter part of February they would begin to distribute to members of the House of Delegates informative summarizations of the various phases of the survey in order that Delegates might have an intelligent viewpoint of the work that was being accomplished and the report that is to be rendered and would thus be able to record mature judgment in their deliberations during the session of the House of Delegates. The following motion was made by Councilors Powers-Bruce:

The Council requests the Committee on Survey of Medical and Health Agencies to present criticisms and recommendations related to the various plans that have been presented as solutions of the social and economic problems of medicine, and that these include the questions involved in post-graduate work, scientific advancement of doctors, the discussion and appraisal of other studies and to set forth certain plans and policies that may be offered as the result of all the committee's findings.

4. The Secretary submitted the following as his Annual Report, which was referred to the Committee on County Societies, the Committee on Finance, and the Committee on Publication.

SECRETARY'S ANNUAL REPORT

To the Council,
Michigan State Medical Society.
Gentlemen:

I have the honor and appreciated privilege of transmitting to you, and through your body to the membership, your Secretary's Annual Report for 1932.

FINANCIAL

Appended hereto is our Auditor's financial report disclosing the Society's financial status. Appended also is an itemization of all receipts and expenditures.

FINANCIAL COMMENT

When consideration is given to the facts that the Council directed that a rebate in annual dues be given to each member in the total amount of $8,132.87; when it is remembered that by action of the House of Delegates the Council financed the cost of the work of the Committee on Survey of Medical Services and Health Agencies in the sum of almost $5,000; when it is recalled that there was a lessened income from exhibitors and advertisers and an increased cost of Annual Meeting, American Medical Association Delegates and Committee expense—when due heed is given to these factors then it must be concluded that our financial program was sound. The extraordinary demands for medico-legal service and protection made heavy demands upon the funds of that protecting membership benefit.

Our advertising income was $6,234.94, a loss of $2,614.29.

Our dues income was $5,936.88 less by reason of the rebate granted.

Our Investment Reserve depreciation is 50 per

cent since 1930 but eventually will be but about 20 per cent.

Our Annual Meeting cost $2,019.08.

It can be justifiably affirmed that we have had a satisfactory financial experience.

A financial program and Budget for 1933 has been formulated after careful thought and computation and transmitted to your Committee on Finance. The Chairman of that Committee will present it with recommendations for your consideration at this session.

Dr. Wm. A. Hyland, your Treasurer, has qualified for the office and the Society holds a security bond for the funds in his keeping.

Your Secretary has sought to be most diligent in supervising disbursements and also in embracing every opportunity of producing increased revenue.

DEFERRED PAYMENT OF DUES

Unless otherwise instructed, members' notes will be accepted for 1933 dues when approved by the County officers.

THE JOURNAL

The financial affairs of the Journal are in sound condition. Appreciation and credit must be recorded to the Bruce Publishing Company for voluntary reduction of printing cost on two occasions during the year that were productive of financial savings. This Company has been most obliging, coöperative and courteous in all business transactions. The Society is most fortunate in having established business connections with this firm that is so high in rating and character. I commend them in highest terms to other state organizations.

Business retrenchments on the part of firms has occasioned a $2,614.29 reduction in advertising income. Your Secretary has pursued every source for increased income. Experience and present information warrant stating that an increased income may be expected in 1933. Increased income is dependent upon patronage of advertisers. It must be urged that this be constantly stressed to our members on every occasion.

No charge has been made against the Journal account for Secretary's time, office, bookkeeping, advertising or clerical salaries.

SOCIETY MEMBERSHIP

On January 1, 1932, our membership was 3,235. On January 1, 1933, our membership is 3,261, a gain of 26 with 32 deaths, a net gain of 58 affiliated as follows:

MEMBERSHIP TABULATION

County	*1931*	*1932*	*Loss*	*Gain*	*Unpaid*	*Deaths*
Alpena	14	15	..	1	..	1
Antrim-Charlevoix-Emmet-Cheboygan	23	30	..	7	1	..
Barry	12	12	..	..	1	1
Bay-Arenac-Iosco	63	62	1	..	3	2
Berrien	42	41	1	..	5	1
Branch	12	13	..	1	1	..
Calhoun	112	113	..	1	..	1
Cass	11	12	..	1	1	..
Chippewa-Mackinac	15	17	..	2	..	..
Clinton	13	12	1	..	2	..
Delta	21	23	..	2	..	..
Dickinson-Iron	18	19	..	1	3	..
Eaton	16	21	..	5	..	..
Genesee	139	131	8	..	14	1
Gogebic	25	26	..	1	1	1
Grand Traverse-Leelanau	25	28	..	3	..	..
Gratiot-Isabella-Clare	26	28	..	2	1	..
Hillsdale	22	20	2	..	1	..
Houghton-Baraga-Keweenaw	42	40	2	..	2	..
Huron	9	9	..	..	1	..
Ingham	94	83	11	..	9	..
Ionia-Montcalm	36	33	3	..	3	..
Jackson	76	69	7	..	8	..
Kalamazoo	120	122	..	2	2	3
Kent	200	232	..	32	6	2
Lapeer	24	18	6	..	3	2
Lenawee	33	35	..	2	1	1
Livingston	10	12	..	2	1	..
Luce	9	10	..	1	..	..
Macomb	34	32	2	..	4	..
Manistee	14	13	1	..	1	1
Marquette-Alger	33	36	..	3	1	..
Mason	10	8	2	..	4	..
Mecosta-Osceola	20	19	1	..	..	..
Menominee	12	10	2	..	..	1
Midland	9	8	1	..	2	..
Monroe	33	31	2	..	5	1
Muskegon	68	67	1	..	1	2
Newaygo	10	9	1	..	..	..
Oakland	93	95	..	2	12	4
Oceana	7	8	..	1	..	..
Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw	11	11	..	..	1	..
Ontonagon	6	5	1	..	1	..
Ottawa	28	28	..	..	1	..
Saginaw	70	75	..	5	5	..

County	*1931*	*1932*	*Loss*	*Gain*	*Unpaid*	*Deaths*
Sanilac	6	10	..	4	..	..
Schoolcraft	4	5	..	1	..	..
Shiawassee	30	27	3	..	2	1
St. Clair	46	44	2	..	4	2
St. Joseph	15	17	..	2	..	..
Tri-Wexford-Kalkaska-Missaukee	20	23	..	3	..	1
Tuscola	26	23	3	..	4	1
Washtenaw	119	124	..	5	8	1
Wayne	1,249	1,279	..	30	108	18
	3,235	3,293	64	122	234	49
		3,235		64		
Gain for 1932		58		58		
Deaths		49				
Total gain 1932		107				

DEATHS

The following deaths for 1932 are recorded:

Alpena County
Wood, Richard R.

Barry County
Griswold, R. W.

Bay County
Baird, Thomas A.
Stewart, C. A.

Berrien County
Curtis, Orville R.

Calhoun County
Stone, Ray C.

Genesee County
Chapel, C. D.

Gogebic County
Madajesky, E. M.

Kalamazoo County
Gifford, A. H.
Ostrander, Herman
Upjohn, Wm. E.

Kent County
Barth, Louis
Hooker, Charles E.

Lapeer County
Blake, Wm.
Wisner, Calvin A.

Lenawee County
Eccles, R. M.

Manistee County
Robinson, Humphrey D.

Menominee County
Vennema, Henry A.

Monroe County
Knapp, L. C.

Muskegon County
Cramer, J. T.
Eames, Lucy N.

Oakland County
Brannock, Albert L.
Hamlin, G. F.
Losee, James W.
Miller, James A.

Shiawassee County
Parker, Jesse O.

St. Clair County
Brush, B. E.
Platt, J. S.

Tri-County
Wardell, Joshua

Tuscola County
Young, S. B.

Washtenaw County
Canfield, R. Bishop

Wayne County
Applebee, Wm.
Bastendorf, Wm. P.
Bauguess, H.
Bundy, George
Coram, Edward J.
Harrison, J. W.
Hoskins, Neal L.
Hubbard, Edwin E.
James, H. H., Jr.
Lavely, Newell E.
Maunders, J. E.
Mead, James E.
Ridenour, George W.
Rivkin, Machael A.
Rosenthal, Jacob
Sherman, George H.
Truesdell, Clarence E.
Wendt, Leonard F. C.

Tribute was paid to these departed members at our Annual Meeting.

MEMBERSHIP BENEFITS

Medical organization has been and will be the powerful factor in protecting and maintaining the practice and influence of the individual physician. Individual effort, to stem the tide of exploitation of the doctor and his science, is unavailing and doomed to destructive defeat. All of our traditions, all of our scientific accomplishments and all of our future hopes can only be conserved and enhanced by a closed union of our interests. From time to time in Journal comments, communications and talks before our County units this basic fundamental has been stressed. By diagrams and by placing emphasis upon what our Society is accomplishing through its officers, Council and Committees the benefits of membership have been demonstrated. Further comment at this time is unnecessary for during the coming year benefits of affiliation will be continuously pointed out to the profession.

POST GRADUATE CONFERENCES

In coöperative effort with the Department of Post Graduate Medicine of the University and the Chil-

dren's Fund, the following post graduate activities have been conducted.

April 6, 1932—Ninth Councilor District—Manistee, Mich.
April 19, 1932—Seventh Councilor District—Port Huron, Mich.
May 19, 1932—Twelfth Councilor District—Iron Mountain, Mich.
May 25, 1932—Eleventh Councilor District—Big Rapids, Mich.
June 6-18, 1932—Post Graduate Courses—Detroit Receiving Hospital.
October 11, 1932—Post Graduate-Pediatric Conference—Marquette, Mich.
November 10, 1932—Ninth Councilor District—Cadillac, Mich.
November 30, 1932—Sixth Councilor District—Owosso, Mich.

The excellent report of the Commission on Medical Education contains this vital fact: "Emphasis must be kept constantly upon the fact that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness and the protection of health."—"Medicine will occupy its proper place in society to the extent that it provides leadership and properly trained personnel for the program of medical service, which should be buillt upon thoughtfully conceived plans of medical and post graduate education, proper organization of the profession, and the advocacy of unselfish and courageous public and professional policies."

Our Society some fifteen years ago perceived that principle and has been a pioneer in fostering such activities and acquitting itself of that responsibility. In fact we blazed a trail. First by Clinic teams, then by regional Clinics followed by Councilor District and County Clinics and Conferences, and then by creating through the Department of Post Graduate Medicine of our University the intensive post graduate work of two and four weeks duration. Each year in Ann Arbor and Detroit exceptional post graduate opportunities have been made available at the very door of our members. These opportunities are being enlarged each year and during the next five months the Post Graduate Department of Medicine of the University will conduct an enlarged program of post graduate work in Ann Arbor and Detroit that will afford to our members opportunity for study not obtainable elsewhere.

County Officers and Councilors may well direct attention to these courses and impress upon members that in creating these opportunities the Post Graduate Department of the University and our Society has provided for their benefit and personal profit post graduate work that merits appreciation and should be embraced and recognized as a commendable contribution for their individual welfare. Michigan will continue to lead in this service to its members, to the public and to the solution of providing adequate medical care for all communities.

COMMITTEE WORK

In furthering Society accomplishment, special undertakings have been assigned to well chosen Committees created as follows:

(a) Joint Committee on Public Health Education.
(b) Radio Committee.
(c) Survey of Medical Services and Health Agencies.
(d) Civic and Industrial Relations.
(e) Study of Birth Control.
(f) Preventive Medicine.
(g) Cancer.
(h) Scientific Program.
(i) Legislation.
(j) Medico-Legal.

Each of these Committees is engaged in specific achievements. Their work and progress is reported from time to time and summarized annually in reports to the House of Delegates. The Council has been most liberal in providing funds for their work. During 1932 $7,674.86 was expended for Committee activity. Every credit should be accorded for the time and effort contributed by these Committeemen.

WOMAN'S AUXILIARY

The House of Delegates and the Council has sponsored and inspired auxiliary activity. One month ago, following a conference with President Robb and Chairman Corbus, your Secretary outlined a program of work for the Auxiliaries. It is hoped that the opportunities outlined will be embraced. County Societies as yet without Auxiliaries are urged to organize a local Auxiliary.

ANNUAL MEETING

The expressions received following our last Annual Meeting warrant continuation of that type of program. Our experience the past several years warrants consideration as to whether our Annual Meeting places be confined to Detroit, Grand Rapids and Flint with an occasional meeting in a resort area.

ADMINISTRATIVE

The past year has been one of greatly increased administrative work. This may be accounted for partly by the unrest created by economic conditions, increased membership interest in organizational work, enlarged organizational activity, increased Committee activity and the creation of new problems occasioned by business, legislative and public proposals. Our County Societies have been more active and have availed themselves in greater degree of the services of the Secretary's office, as they should. In every possible way your Secretary and the service of his office have been unreservedly placed at the membership's disposal. Your Secretary has accepted all but two invitations and of these latter engagements at other places prevented acceptance. Fifty-two full days were given to State visits. More than full time service has been rendered during the year. The spirit of service and helpfulness is ever sought to be made characteristic of your Secretary's administrative acts.

RECOMMENDATIONS

Recorded action and Committee recommendations have, in the main, formulated guiding recommendations. The following recommendations warrant consideration:

(1) That upon Councilor Cook's recommendation the week of February 5 to 11 be designated as an Intensive Membership Campaign Week and the Secretary be instructed to induce, with Councilor coöperation, a planned campaign for solicitation for membership affiliation of every eligible doctor in the State.

(2) That a Secretaries Conference be called for the afternoon and evening before the Special Meeting of the House of Delegates with mileage expense and dinner paid by the Society.

CONCLUSIONS

Twenty years ago this month your body selected me to assume and discharge the duties of the office of Secretary. Looking back over that score of years, a long time, I am impressed with tremendous organizational advancement and expansion that has been recorded. Our Society merits every commendation for all that has been achieved. It has creditably assumed roles of creator, leadership, sponsorship and trusteeship in a march of progress that has remained abreast, and often anticipated, society and civic developments and changing events.

Our history is filled with acts that deserve unstinted approval. We have every reason for pride of and respect for the manner in which our Society has accepted its responsibilities and justified its existence. For all this, credit is due to the Officers, Councilors and Members who gave unselfishly of self and of their thought and time. I am profoundly grateful for having been privileged to serve them and through them the people of our great commonwealth.

Respectfully sumbitted,
F. C. WARNSHUIS, *Secretary.*

January 6, 1933.

Michigan State Medical Society,
Grand Rapids, Michigan.
Gentlemen:

We have examined the general accounts of the MICHIGAN STATE MEDICAL SOCIETY for the year ended December 24, 1932.

In addition to an examination of the accounts pertaining to the assets and liabilities of the Society at December 24, 1932, we have reviewed the operating accounts and tested the recorded cash transactions for the year then ended. The scope of our work and the extent of the detailed records examined are outlined in later sections of this report.

The Society was incorporated under the laws of Michigan as an association not for pecuniary profit on September 17, 1910. The purpose of the Society is the federation and protection of the medical profession and the extension of medical knowledge.

FINANCIAL ANALYSIS

A balance sheet is included herein which, in our opinion, shows the financial position of the Society as of December 24, 1932, on the basis outlined in this report. The following statement affords a comparison of the assets and liabilities at the beginning and end of the year:

Assets

	Dec. 24, 1932	Dec. 29, 1931	Increase Decrease
Cash	$ 459.05	$	$ 459.05
Notes and accounts receivable	1,565.56	985.07	580.49
Securities:			
Bonds—at cost	$43,518.75	$43,518.75	$ .....
Less allowance to reduce to approximate market value	22,583.75	16,159.25	6,424.50
	$20,935.00	$27,359.50	$ 6,424.50
Contract for medical history	3,000.00	3,000.00	.....
	$25,959.61	$31,344.57	$ 5,384.96

Liabilities

Bank overdraft	$	$ 12.87	$ 12.87
Notes payable	3,800.00	.....	3,800.00
Accounts payable:			
For services, etc.	$	$ 1,483.71	$ 1,483.71
Joint Committee on Public Health Education	1,813.44	1,037.41	776.03
Couzens Foundation	39.37	468.31	428.94
Advances for reprints	131.50	145.76	14.26
	$ 1,984.31	$ 3,135.19	$ 1,150.88
Reserves:			
For Medico-Legal Defense Fund	$ 8,107.24	$11,575.17	$ 3,467.93
For medical history	3,000.00	3,000.00	.....
	$11,107.24	$14,575.17	$ 3,467.93
Net worth	9,068.06	13,621.34	4,553.28
	$25,959.61	$31,344.57	$ 5,384.96

Notes receivable were accepted in payment of 1931 and 1932 dues, as authorized by the council. The notes for 1931 dues and a large portion of those for 1932 dues are payable December 1, 1932.

Advertisers' accounts receivable were analyzed according to age and are summarized as follows:

Date of Charge

	Dec. 24 1932 Amount	Per cent	Dec. 29, 1931 Amount	Per cent
December	$ 402.75	33.69%	$ 690.99	67.41%
October and November	219.60	18.37	100.00	9.75
July, August and September	271.16	22.68	97.50	9.51
January to June, inclusive	154.47	12.92	66.08	6.45
Prior to January 1	147.58	12.34	70.50	6.88
TOTAL	$1,195.56	100.00%	$1,025.07	100.00%

Accounts receivable for medical history represent valid accounts arising from sales made in 1930.

Based upon our analysis of the notes and accounts and conference with the Secretary as to their collectibility, it is our opinion that the allowance for doubtful in the amount of $250.00 is sufficient to cover any losses in collection thereof anticipated at December 24, 1932.

A schedule included hereinafter shows the par value, cost and approximate market value of the bonds owned by the Society at December 24, 1932. The market values of all listed securities are based on closing market quotations at December 24, 1932. Unlisted bonds were valued on the basis of information obtained through brokers relative to the most recent bid or sales prices. An allowance in the amount of $22,583.75 has been provided to reduce the book value of the bonds to approximate market value at December 24, 1932. A portion of this allowance, in the amount of $7,742.50 represents the shrinkage in book value of bonds set aside as property of the Medico-Legal Defense Fund. Therefore, the additional provision of $987.00 necessary thereon has been charged against the account of that fund on the books of the Society. Bonds with a par value of $8,000.00 have been pledged as collateral for notes payable of $3,800.00.

The contract for medical history in the amount of $3,900.00 represents the unpaid balance on a contract with the Bruce Publishing Company for 750 sets of the medical history at $10.00 each. At December 24, 1932, the Society had paid $4,500.00 on the original contract amount of $7,500.00. Delivery is made by the publisher as ordered by the Society, whose records indicate approximately 125 sets paid for by the Society but undelivered at December 24, 1932. Owing to the small number of sales during the past two years, no consideration has been given to the inventory value of the unsold histories. Data examined by us indicate that the Bruce Publishing Company undertook the publication of the history on a profit-sharing basis and that, under the contract, there appears to be no further legal liability of the Society therefor. The reserve for medical history represents the unpaid balance of the amount established by the Council in 1930 and, accordingly, is shown in the balance sheet pending its authorization of any change therein.

Provision has been made, as far as we could ascertain, for all known liabilities of the Society at December 24, 1932.

Schedules included hereinafter summarize the recorded transactions of the funds administered by the Society for the Joint Committee on Public Health Education and the Couzens Foundation. The balances show the liability of the Society to these funds at December 24, 1932.

The Medico-Legal Defense Fund has been credited on the basis of $1.00 for each annual membership paid during the year. A summary of the changes in this fund is included herein which shows a balance of $8,107.24 at December 24, 1932, after providing for additional shrinkage in the market value of its bonds.

The net worth of the Society decreased $4,553.28 during the year. Contributing thereto is the addi-

tional provision necessary for the shrinkage in the market value of the Society's bonds in the amount of $5,437.50.

Surety bonds in favor of the Society in the amounts of $25,000.00 and $10,000.00 covering Dr. William A. Hyland and Dr. Frederick C. Warnshuis respectively, were examined by us.

OPERATIONS

We present elsewhere in this report a statement of income and expense setting forth the results from operations for the year ended December 24, 1932. The scope of our examination in connection with the preparation of this statement consisted of test checks of the data entering into the cash and operating transactions as hereinafter outlined. A comparison of the income and expense for the years ended December 24, 1932, and December 29, 1931, is shown by the following summary:

Income

	Year Ended Dec. 24, 1932	Dec. 29, 1931	Increase Decrease
Membership dues	$21,282.99	$19,087.00	$ 2,195.99
Journal subscriptions, advertising, reprints and cuts	16,815.03	18,447.33	1,632.30
Interest received	1,486.38	1,699.90	213.52
Sales of medical history	20.00	228.00	208.00
	$39,604.40	$39,462.23	$ 142.17
Less dues refunded	8,132.87	.....	8,132.87
Total Income	$31,471.53	$39,462.23	$ 7,990.70
Expenses:			
Society expenses	$17,944.65	$25,506.08	$ 7,561.43
Journal expenses	12,642.66	15,867.31	3,224.65
Total Expense	$30,587.31	$41,373.39	$10,786.08
Net Income or Deficit	$ 884.22	$ 1,911.16	$ 2,795.38

In accordance with action of the Council, the reduction of $2.50 in the 1932 membership dues has been shown as a separate item, which leaves the regular annual dues divided as follows:

Membership fee	$ 6.50
Journal subscription	2.50
Medico-Legal Defense Fund	1.00
TOTAL	$10.00

SCOPE OF EXAMINATION

The scope and nature of our examination are outlined in the following comments:

Cash on deposit was verified by direct correspondence with the depositary bank and reconcilement of the balance reported by it with the amount shown herein. The recorded cash receipts for the year were traced to the bank deposits shown on the bank statements filed in the Society's office. The recorded cash disbursements for two months of the year, selected at random, were found with minor exceptions, to be supported by canceled checks and invoices.

Members' notes receivable were examined by us. Advertisers' accounts and accounts receivable for histories were found to be in agreement with a trial balance of the individual accounts. Advertisers' accounts were analyzed according to age, as hereinbefore outlined, but we did not verify the unpaid balances by correspondence.

Bonds owned by the Society and those belonging to the Medico-Legal Defense Fund were inspected by us, except for $8,000.00 par value of bonds deposited as collateral for notes payable and $3,000.00 par value on deposit with the Grand Rapids Trust Company for the bondholders' committee. Bonds not inspected were verified by receipts on file or by correspondence with the holder thereof.

Notes payable were verified by correspondence with the loaning bank.

In addition to a test of the cash transactions as heretofore outlined, we tested membership fees, journal subscriptions and dues credited to the Medico-Legal Defense Fund by comparisons with the Society's paid membership records. Interest received was proved by comparison with a schedule of bond interest rates and maturities and all coupons of defaulted bonds were examined or accounted for. Major expense charges were investigated by us and all items so examined were found to be in order.

Very truly yours,

ERNST & ERNST,
Certified Public Accountants.

[Seal]

BALANCE SHEET
MICHIGAN STATE MEDICAL SOCIETY
DECEMBER 24, 1932

Assets

Cash			
On deposit		$ 411.55	
For deposit		47.50	
			$ 459.05
Notes and Accounts Receivable			
Notes receivable for dues	$ 507.50		
Advertisers' accounts	1,195.56		
Accounts receivable for medical history	112.50		
		$ 1,815.56	
Less allowance for doubtful		250.00	
			1,565.56
Securities			
Bonds—at cost ($8,000.00 par value pledged)		$43,518.75	
Less allowance to reduce to approximate market value		22,583.75	
			20,935.00
Contract			
For medical history			3,000.00
			$25,959.61

Liabilities

Notes Payable			
Old Kent Bank—secured by bonds of $8,000.00 par value			$ 3,800.00
Accounts Payable			
Joint Committee on Public Health Education		$ 1,813.44	
Couzens Foundation		39.37	
Advances for reprints		131.50	
			1,984.31
Reserves			
For Medico-Legal Defense Fund		$ 8,107.24	
For medical history		3,000.00	
			11,107.24
Net Worth			
Balance at December 30, 1931	$13,621.34		
Net profit for the year ended December 24, 1932	884.22		
		$14,505.56	
Less additional provision for the reduction of bonds to market value		5,437.50	
			9,068.06
			$25,959.61

This balance sheet is subject to the comments contained in this report.

INCOME AND EXPENSE
MICHIGAN STATE MEDICAL SOCIETY

Income

	Year Ended Dec. 24, 1932	Year Ended Dec. 29, 1931	Increase Decrease
Membership fees	$21,282.99	$19,087.00	$ 2,195.99
Journal subscriptions	8,333.17	8,129.32	203.85
Advertising sales	6,234.94	8,849.23	2,614.29
Reprint sales	1,780.97	1,468.78	312.19
Journal cuts	465.95	.....	465.95
Interest received	1,486.38	1,699.90	213.52
Sales of medical history	20.00	228.00	208.00
	$39,604.40	$39,462.23	$ 142.17
Less dues refunded	8,132.87	.....	8,132.87
TOTAL INCOME	$31,471.53	$39,462.23	$ 7,990.70

Expenses

Society Expense			
Secretary's salary	$ 4,000.00	$ 6,500.00	$ 2,500.00
Stenographers' salaries	2,369.00	3,016.00	657.00
Office rent and telephone	1,250.00	1,800.00	550.00
Postage	197.92	405.00	207.08
Printing and stationery	588.07	878.71	290.64
Miscellaneous society expense	806.63	2,207.21	1,400.58
Council expense	996.87	2,036.91	1,040.04
Delegates to the American Medical Society Convention	887.44	544.01	343.43
Legislative committee	122.17	2,630.87	2,508.70
Post graduate medical conference	410.29	769.62	359.33
Annual meeting	1,369.06	1,556.31	187.25
Survey of medical service and health agencies	4,484.88	108.90	4,375.98
Medical history expense	.....	1,609.84	1,609.84
Civic and industrial relations committee	9.00	298.02	289.02
Radio committee	146.45	104.70	41.75
Cancer committee	56.87	39.98	16.89
Donations	250.00	1,000.00	750.00
SOCIETY EXPENSES	$17,944.65	$25,506.08	$ 7,561.43
Journal Expense			
Editor's salary	$ 2,500.00	$ 3,500.00	$ 1,000.00
Editor's expenses	996.15	854.24	141.91
Printing and miscellaneous	7,690.38	10,187.52	2,497.14
Reprint expense	1,456.13	1,325.55	130.58
JOURNAL EXPENSES	$12,642.66	$15,867.31	$ 3,224.65
TOTAL EXPENSE	$30,587.31	$41,373.39	$10,786.08
NET INCOME OR DEFICIE	$ 884.22	$ 1,911.16	$ 2,795.38

SUMMARY OF CHANGES IN MEDICO-LEGAL DEFENSE FUND RESERVE
MICHIGAN STATE MEDICAL SOCIETY
YEAR ENDED DECEMBER 24, 1932

Balance—Medico-Legal Defense Fund at December 30, 1931			$11,575.17
Income			
Dues		$ 3,301.01	
Interest received		609.00	
			3,910.01
			$15,485.18
Disbursements			
Douglas, Barbour, Desenberg & Shaeffer for legal services	$ 5,248.93		
George C. Higbee, transcript	115.50		
Salary	1,000.31		
Postage and miscellaneous	26.20		
		$ 6,390.94	
Additional provision for reduction of bonds to approximate market value		987.00	
			7,377.94
Balance—Medico-Legal Defense Fund at December 24, 1932			$ 8,107.24

ANNUAL MEETING EXPENSE—1932

February			
Belote, G. H	$ 2.28		
Curry, G. J	9.26		
Gordon, T. D	12.00		
Harvey, Campbell	4.68		
Green, I. W	7.70		
Hayes Hotel	32.35		
Valade, Cyril K	10.36		
Haughey, Wilfred	5.40		
Furlong, Harold	9.36		
		$ 93.39	
May			
Warnshuis, F. C	$ 12.00	12.00	
June			
Mester, Frank J	3.50	3.50	
July			
Blue Print Service Shop	12.50	12.50	
August			
Warnshuis, F. C	10.16	10.16	
September			
Warnshuis, F. C	30.20		
Hotel Burdick	25.00		
Milo Art Studio	230.00		
Hotel Burdick	68.30		
Andrews, F. T	30.80		
Columbia Warehouse	15.00		
Hoffman, Caroline	17.00		
Bruce Publishing Co	101.44		
Falls, F. H	25.00		
Kalamazoo Civic Auditorium	200.00		
Matsner, Eric M	98.95		
Parkhurst, Howard J	23.80		
Robbins, "Doc"	21.65		
Senear, Frances E	18.00		
St. Louis Button Co	46.90		
Warnshuis, F. C	13.75		
German, Wm. McK	30.15		
Columbia Electric Co	13.90		
Robb, J. M	65.14		
Hart, Vernon L	45.00		
Mack, Harold C	45.00		
Straith, Claire L	45.00		
Sewell, George	45.00		
Geib and Vaughan	45.00		
			1,299.98

October		
Levine, Samuel	$ 95.00	
Master Reporting Co.	169.69	
Westervelt, H. O.	19.07	
Burke, R. A.	50.00	
Spooner, C. Martin	32.00	
Goldthwaite, Joel E.	86.44	
		452.20
November		
Vaughan, Warren T.	$ 85.35	85.35
December		
Andrews, F. T.	50.00	50.00
		$2,019.08
Credit for Exhibit Booths Sold		650.02
		$1,369.06

JOURNAL EXPENSE—1932

January		
Copyright	$ 2.00	$ 2.00
February		
Copyright	2.00	
Bruce Publishing Co.—January and February	1,640.44	
		1,642.44
March		
Copyright	$ 2.00	
Bruce Publishing Co.	688.95	
		690.95
April		
Copyright	$ 2.00	
Bruce Publishing Co.	586.50	
		588.50
May		
Copyright	$ 2.00	
Bruce Publishing Co.	599.22	
		601.22
June		
Copyright	$ 2.00	
Bruce Publishing Co.	623.07	
		625.07
July		
Bruce Publishing Co.	$ 649.86	649.86
August		
Bruce Publishing Co.	486.83	486.83
September		
Bruce Publishing Co.	540.20	540.20
October		
Bruce Publishing Co.	575.24	
Postage	120.00	
		695.24
November		
Bruce Publishing Co.	$ 684.35	684.35
December		
Bruce Publishing Co.	482.34	
Ward-Schopps—Cut	1.38	
		483.72
		$7,690.38

SOCIETY EXPENSE—1932

January		
Dunlap, J. H.	$ 1.69	
Charts	10.00	
Johnson Co., A. P.	60.95	
Pantlind Hotel	55.00	
Warnshuis, F. C.	15.24	
		$ 142.88
February		
Columbian Warehouse Co.	$ 23.82	
Jones, Jesse	7.50	
Bray, Geo.	5.00	
Addressograph Co.	5.47	
Barlow Bros.	19.50	
Bixby's	3.35	
Hoogerhyde, John M.	26.00	
Johnson Co., A. P.	35.46	
Master Reporting Co.	53.55	
Richards Storage Co.	4.00	
Robb, J. M.	27.98	
Taylor's	10.00	
Taylor-Husted	4.15	
Ten Broek & Son, H. W.	60.00	
Tisch-Hine Co.	3.45	
Western Union	4.15	
Warnshuis, F. C.	30.96	
Dunlap, J. H.	1.11	
		325.45
March		
Addressograph Co.	$ 1.97	
Bixby Office Supply Co.	2.35	
Ernst & Ernst	176.98	
Johnson Co., A. P.	75.90	
Richards Storage Corp.	2.00	
Taylor's	2.70	
Western Union	3.67	
Warnshuis, F. C.	6.11	
		271.68
April		
Ten Broek, H. W.	$ 15.00	
Addressograph Co.	2.63	
Richards Storage Co.	2.00	
Taylor's	1.00	
Western Union	1.16	
		21.79
May		
Addressograph Co.	$ 3.65	
Richards Storage Co.	2.00	
Western Union	1.05	
		6.70
June		
Addressograph Co.	$ 1.29	
Taylor's	6.10	
		7.39
July		
Addressograph Co.	$ 2.41	
Richards Storage	2.00	
Taylor's	2.90	
Bixby Office Supply Co.	4.00	
		11.31
August		
Charge on 13 checks	$ .26	
Richards Storage Co.	4.00	
Terryberry, H. R.	36.75	
Ward-Schopps Co.	20.25	
Western Union	1.42	
Addressograph Co.	1.88	
Moll, Carl	65.25	
		129.81
September		
27 Checks—charge	$ .54	
Addressograph Co.	1.63	
Taylor's	29.25	
Ward-Schopps Co.	29.25	
Long Distance Calls	4.55	
Moll, Carl F.	51.88	
		92.65
October		
36 Checks—Charge	$ .72	
G. R. Insurance Agency	43.50	
Taylor's	12.15	
Ward-Schopps	180.13	
Western Union	2.75	
		239.25
November		
45 Checks—Charge	$ .90	
Addressograph Co.	1.00	
Ward-Schopps Co.	56.45	
Taylor's	7.00	
Survey Expense	9.68	
		75.03
December		
35 Checks—Charge	$ .70	
Expenses—Ingham County Conf.	9.81	
J. M. Robb	13.64	
University Press—Chicago	6.00	
Storage on Viewing boxes	15.00	
Emily Graversen	5.00	
Caroline Hoffman	15.00	
Addressograph Co.	6.99	
Arthur Crabb	10.40	
Jay Mertz	1.00	
Hotel Statler	18.60	
Taylor's	5.25	
Ward-Schopps Co.	3.50	
Western Union	5.03	
Long Distance Calls	2.75	
Addressograph Co.	1.45	
Joint Committee	250.00	
Allowance on Histories	6.25	
December—check charge	.64	
		377.01
		$1,700.95
CREDITS		
G. R. Insurance Agency	$ 39.25	
Return on R. R. Smith dinner	17.00	
		56.25
		$1,644.70

COUNCIL EXPENSE—1932

Note: Executive Committee Expenses are included in Chairman's and Secretary's accounts.

January		
Statler Hotel	$ 59.69	
Statler Hotel	22.65	
		$ 82.34
February		
Burke, R. A.	$ 50.00	
Corbus, B. R.	109.16	
Hafford, George C.	52.15	
Haughey, Wilfred	16.30	
MacMullen, Harlen	104.20	

	Neafie, C. A.	9.00	
	Powers, Julius H.	29.80	
	Van Leuven, B. H.	17.20	
			387.81
April			
	McIntyre, J. E.	$ 81.40	81.40
May			
	Warnshuis, F. C.	11.75	
	Le Fevre, George	71.00	
			82.75
July			
	Corbus, B. R.	$ 104.15	
	Warnshuis, F. C.	8.62	
			112.77
August			
	Moll, Carl F.	$ 95.55	95.55
October			
	Cook, Henry	$ 13.60	
	MacMullen, Harlen	27.40	
	Warnshuis, F. C.	16.26	
			57.26
November			
	Heavenrich, Theodore	$ 18.50	
	Statler Hotel	30.60	
			49.10
December			
	Robb, J. M.	$ 19.00	
	MacMullen, Harlen	8.40	
	Cook, Henry	20.50	
	Corbus, B. R.	109.15	
			157.05
			$1,106.03
	Less—Expense Item B. R. Corbus —charged to 1931 expense		109.16
			$ 996.87

LEGISLATIVE COMMITTEE—EXPENSES 1932

February			
	Whittaker, Alfred H.	$50.00	
	Carr, Earl I.	8.99	
			58.99
April			
	Wayne County Medical Society	14.00	14.00
June			
	Carr, Earl I.	49.18	49.18
			$122.17

CIVIC AND INDUSTRIAL RELATIONS COMMITTEE —EXPENSES 1932

February		
	Collisi, Harrison S.	$9.00

CANCER COMMITTEE—EXPENSE 1932

February		
	Cuts—Article by Dr. Dutchess	$56.87

DELEGATES TO AMERICAN MEDICAL ASSN.— EXPENSES 1932

May			
	Brooks, J. D.	$175.84	
	Gorsline, C. S.	170.75	
	Hirschman, L. J.	179.25	
	Luce, H. A.	183.90	
	Moll, Carl F.	175.00	
			$884.74
June			
	Error check J. D. Brook	$ 2.70	2.70
			$887.44

HEALTH AGENCIES SURVEY—EXPENSES 1932

January			
	Warnshuis, F. C.	$ 14.32	
	Typing Reports of Committee	21.50	
			$ 35.82
February			
	Baker, F. A.	$ 20.84	
	Estabrook, B. U.	20.00	
	Gorsline, C. S.	16.60	
	Marshall, W. H.	25.00	
			82.44
March			
	Baker, F. A.	$ 8.88	8.88
April			
	Sinai, N.	121.76	
	Warnshuis, F. C.	9.68	
	Kent County Medical Society	100.00	
			231.44
May			
	Sinai, N.—Postage	$ 200.00	
	Baker, F. A.	11.84	
	Estabrook, Bert U.	20.00	
	Gorsline, C. S.	7.36	
	Johnson Co., A. P.—printing	190.00	
	Sinai, N.—Salary—March 15 to May 15	500.00	
	Sinai, N.—Expenses	106.85	
			1,036.95
June			
	Christian, L. G.	$ 34.60	
	Johnson Co., A. P.—printing	123.05	
	Sinai, N.—salary	250.00	
	Sinai, N.—expenses	116.27	
			523.92
July			
	Sinai, N.—salary	$ 250.00	
	Sinai, N.—expenses	62.34	
	Sinai, N.—expenses	500.00	
			812.34
August			
	Sinai, N.—salary	$ 250.00	
	Sinai, N.—expenses	63.97	
			313.97
September			
	Baker, F. A.	$ 23.02	
	Ward-Schopps Co.—printing	23.00	
	Sinai, N.—expenses	75.87	
			121.89
October			
	Sinai, N.—expenses	$ 300.00	
	Baker, F. A.	8.88	
	Ward-Schopps Co.—printing	20.72	
	Sinai, N.—salary	250.00	
	Sinai, N.—expenses	55.49	
			635.09
November			
	Sinai, N.—salary	$ 250.00	
	Sinai, N.—expenses	91.94	
	Gorsline, C. S.	5.52	
			347.46
December			
	Estabrook, B. U.	$ 10.00	
	Gorsline, C. S.	5.52	
	Sinai, N.—salary	250.00	
	Sinai, N.—expenses	70.28	
	Baker, F. A.	8.88	
			344.68
			$4,494.88
	Overpayment on check—May, 1932		10.00
			$4,484.88

JOINT COMMITTEE—EXPENSES 1932

February			
	Salaries—January and February	$ 350.00	$ 350.00
March			
	Salaries	175.00	
	Lyons, Don C.	48.00	
			223.00
April			
	Salaries	$ 175.00	175.00
May			
	Salaries	175.00	175.00
June			
	Salaries	175.00	
	Alumni Press	17.75	
	Mayer-Schairer Co.	21.00	
			213.75
July			
	Salaries	$ 175.00	175.00
August			
	Salaries	175.00	175.00
September			
	Salaries	175.00	
	Lyons, Don C.	50.00	
	Mayer-Schairer Co.	21.00	
			246.00
October			
	Salaries	$ 175.00	
	Ann Arbor Press	18.25	
			193.25
November			
	Salaries	$ 175.00	
	Mayer-Schairer Co.	21.00	
			196.00
December			
	Salaries	$ 175.00	175.00
			$2,297.00

COUZENS FOUNDATION—EXPENSE 1932

Balance from 1931				$468.31
July				
	Cowie, D. M.	$140.00		
	Levy, David J.	90.00		
	Garvey, J. L.	77.86		
	Waggoner, R. W.	104.00		
			$411.86	
October				
	Postage—postgraduate Conference—Marquette—June	$8.54		
	Postage—postgraduate Conference—Marquette—Oct.	8.54	17.08	428.94
	Balance—December, 1932			$39.37

JOINT COMMITTEE—CREDITS 1932

Balance from 1931		$1,037.41
March		
University of Michigan—donation	$ 125.00	
Michigan State Nurses—donation	25.00	
Michigan State Dental—donation	125.00	
Mich. Tuberculosis Ass'n—donation	75.00	
		$ 350.00
May		
Michigan Hospital Ass'n—donation	$ 100.00	
Children's Fund—donation	1,200.00	
Detroit News	576.90	
		1,876.90
June		
Detroit News	$ 96.15	
Detroit News	76.92	
		173.07
July		
Detroit News	$ 76.92	
Detroit News	76.92	
Detroit News	173.07	
Detroit News	96.15	
		423.06
December		
Michigan State Medical Society donation	$ 250.00	250.00
		$4,110.44
Less—Expenses for 1932		2,297.00
Balance on hand—December, 1932		$1,813.44

MEDICO-LEGAL DEFENSE—RECEIPTS AND DISBURSEMENTS—1932

RECEIPTS

Balance from 1931	$4,220.67
Dec. 30, 1931—Bills Payable	1,374.55
January—dues	159.00
February—dues	654.00
March—dues	505.00
April—dues	1,238.00
May—dues	166.75
June—dues	180.00
June—interest on bonds	289.50
July—dues	115.50
July—interest on bonds	27.50
August—dues	159.76
September—dues	41.25
October—dues	28.00
November—dues	32.00
November—interest on bonds	262.00
December—dues	20.75
December—interest on bonds	30.00
	$9,595.23

DISBURSEMENTS

February		
Stapleton, Wm., January and February salary	$ 166.66	
Douglas-Barbour	505.85	
Douglas-Barbour	347.20	
		$1,019.71
March		
Stapleton, Wm. J.	$ 83.33	
Douglas-Barbour	1,375.74	
		1,459.07
April		
Stapleton, Wm. J.	$ 83.33	
Douglas-Barbour	404.25	
		487.58
May		
Stapleton, Wm. J.	$ 83.33	
Stapleton, Wm. J.—Exp.	5.20	
Douglas-Barbour	429.40	
		517.93
June		
Stapleton, Wm. J.	$ 83.33	
Douglas-Barbour	304.00	
Coupons returned	90.00	
		477.33
July		
Stapleton, Wm. J.	$ 83.33	
Stapleton, Wm. J.—Exp.	5.00	
Douglas-Barbour	300.00	
		385.33
August		
Stapleton, Wm. J.	$ 83.33	
Douglas-Barbour	285.50	
		368.83
September		
Stapleton, Wm. J.	$ 83.33	
Douglas-Barbour	817.40	
		900.73
October		
Stapleton, Wm. J.	$ 83.33	83.33
November		
Stapleton, Wm. J.	$ 83.33	
Stapleton, Wm. J.—Exp.	5.00	
Douglas-Barbour	1,031.30	
Higbee, Geo. C.	115.50	
		1,235.13
December		
Stapleton, Wm. J.	$ 83.68	
Douglas-Barbour	100.00	
American Medical Assoc. 2 books	14.00	
Douglas-Barbour	722.84	
		920.52
	$7,855.49	$9,595.23
		7,855.49
Balance		$1,739.74

POSTGRADUATE CONFERENCES EXPENSES—1932

April		
Collisi, H. S.	$ 8.22	
Johnson Co., A. P., Ptg	28.90	
Gordon, T. D.	8.22	
Whinery, J. B.	8.22	
		$ 53.56
June		
Maddock, W. G.	$99.25	
Corbus, B. C.	84.38	
Sinai, Nathan	97.70	
Warnshuis, F. C.	7.75	
		289.08
July		
Corbus, B. R.	$10.00	10.00
November		
Collisi, H. S.	$12.74	
Warnshuis, F. C.	2.75	
		15.49
December		
Ward Schopps, ptg	$7.40	
Warnshuis, F. C.	16.76	
Corbus, B. R.	18.00	
		42.16
		$410.29

RADIO COMMITTEE EXPENSE—1932

May		
Taylor-Husted Letter Shop	$45.25	$ 45.25
October		
Typing Talks	50.00	50.00
December		
Typing Talks	51.20	51.20
		$146.45

EXPENSES—1932

	Editor	Editor Expense	Rent	Postage	Reprint Expense	Secretary	Stenographers
January	$ 208.33	$ 72.15	$ 150.00	----------	----------	$ 333.00	$ 200.00
February	208.00	84.00	100.00	$ 60.00	$ 212.98	333.00	200.00
March	208.00	84.00	100.00	----------	248.55	333.00	200.00
April	208.00	84.00	100.00	60.00	61.45	333.00	200.00
May	208.00	84.00	100.00	30.00	114.30	333.00	200.00
June	208.00	84.00	100.00	30.00	96.55	333.00	200.00
July	208.00	84.00	100.00	5.00	186.90	333.00	140.00
August	208.00	84.00	100.00	30.00	109.15	333.00	140.00
September	208.00	84.00	100.00	30.00	168.55	333.00	140.00
October	208.00	84.00	100.00	30.00	----------	333.00	140.00
November	208.00	84.00	100.00	30.00	73.75	333.00	175.00
December	211.67	84.00	100.00	30.00	183.95	333.00	230.00
	$2,500.00	$996.15	$1,250.00	$335.00	$1,456.13	$4,000.00	$2,165.00
				120.00 Cr. to Journal Exp.			
				$215.00			
				17.08 Cr. to Couzens Fund			
				$197.92			

5. The Treasurer, Wm. A. Hyland, submitted the following report which was referred to the Finance Committee.

TREASURER'S REPORT

Members of the Council:

Shortly after my election as Treasurer, I filed with the State Secretary my indemnity bond as required by the by-laws. In the presence of the Secretary, Dr. Wenger, retiring Treasurer, transferred to me the following bonds which I now hold, with the exceptions as noted in paragraph three:

American Telephone & Telegraph Co...	6%	$2,000
American Telephone & Telegraph Co...	5%	2,000
Association Gas & Electric Corp.....	5%	2,000
Broadway Building—First Mortgage....	6%	2,000
Community Power & Light Co.....	5%	2,000
Grand Rapids Affiliated Corp.....	5%	2,000
Herald Square Building.....	6%	2,000
International Tel. & Telegraph Co.....	5%	2,000
National Electric Power Co.....	5%	5,000
National Gas & Electric Corp.....	6%	2,400
New England Gas & Electric Co.....	5%	2,000
Palmer Building Corporation.....	6%	2,000
Pennsylvania Railroad Co.....	5%	2,000
Peoples Light & Power Corp.....	5½%	2,000
United Light & Power Corp.....	5½%	2,000

In December I deposited with the Secretary $8,000 in bonds used as collateral for a temporary loan of $3,800.00 from the Old Kent Bank and hold receipt for them. I understand these bonds will be returned to my custody when this loan is paid in February. I also hold receipt for $3,000.00—Michigan Fuel and Light Co.—6%, signed by the Grand Rapids Trust Co.

Respectfully,
WILLIAM A. HYLAND, *Treasurer.*

6. The Editor, J. H. Dempster, submitted the following report which was referred to the Publication Committee.

EDITOR'S ANNUAL REPORT

To the President, Chairman, Publication Committee and Members of the Council:

You have had the opportunity twelve times the past year of viewing and passing judgment on the work of the editor of your Journal. On the quality of that work it goes without saying I have nothing to report.

Volume 31 (1932) contains 142 pages less than volume 30 (1931). At six dollars a page this means a decrease in cost of publication of $852.00. There were fewer contributed papers printed, namely 112 as compared with 126, in 1931. Decrease in the size, however, does not necessarily mean sacrifice in quality. Every effort has been made to maintain a high standard not only in contributed papers but in typography and arrangement of the material. And here is my annual commendation of the very excellent craftsmanship as well as coöperation on the part of the printer, The Bruce Publishing Company.

Regarding contributed articles to the Journal I think all will agree that a high standard has been maintained during the past year. The papers by Dr. Lewis which constitute the Beaumont lectures in connection with the Wayne County Medical Society and that on Therapeutic Radiology in Relation to Infancy and Childhood by A. A. Desjardins, presented at the Pediatric Section of the Michigan State Medical Society, are worthy of particular mention as embodying the results of research in subjects of vital importance to medicine.

The editor is still confronted with the problem of handling papers of inordinate length. The exigencies of economy demand curtailment of space. A number of writers, on the other hand, in their attempt to exhaust their subjects have tended to become discursive. In several instances it was necessary to return papers for condensation. This situation is not by any means confined to the Journal of the Michigan State Medical Society. Many journals in pure science find it difficult to print all papers of merit submitted to them for consideration, hence charge the authors of accepted papers not only for illustrations (as has been the custom of our Journal for a number of years) but also make a nominal charge per page of printed matter (which we have not done).

Regarding the editorial department the editor reports with some diffidence. He can only say that editorials cost a great deal more in time and effort than often appears to the reader. Editing a monthly publication has certain advantages. One has time to revise his work, to lay it aside and return to it with the advantage of a perspective that is not accorded the editor of a daily or weekly periodical. Irving Cobb once said when he has an inspiration he sits down and grinds out copy at the rate of an inch an hour and punctuates it with perspiration. We amateurs may take heart when we behold the experience of the professional. An editor should read widely sometimes in fields that may seem remote from medicine. It is important to maintain a clear, concise and if possible convincing style and this can be done only by constant study of good models of English.

A concerted effort on the part of our readers to urge upon advertisers the desirability of eliminating third class advertising matter received each day, most of which goes directly into our waste baskets, and the advisability of advertising in the pages of the Journal would not only enable us to publish a larger and better journal, but it would mean more to the advertiser as well, since it would give him a permanent advertisement in the pages of this Journal which should mean more to him in financial returns on his product.

J. H. DEMPSTER, *Editor.*

7. Dr. Wm. J. Stapleton, Jr., Chairman of the Medico-Legal Committee, submitted the following report which was referred to the Committee on County Societies:

REPORT OF THE MEDICO-LEGAL COMMITTEE

To The Council of the
Michigan State Medical Society

Herein is the annual report of the Medico-Legal Committee for the year 1932.

The experience of the insurance companies as well as our own, shows there has been a definite increase in the last year in the number of suits and threats against our members for alleged malpractice.

It is apparent that the medical defense plan of the Michigan State Medical Society (and here I stop to say a word of appreciation for the splendid work of the late Dr. Frank B. Tibbals, father of the plan and its Chairman for 20 years) which has for its purpose the safeguarding of the medical profession from unjust and malicious suits, is a very important function of our Society.

It is evident by the records of the past year that any efforts made for the prevention of malpractice suits will be of little avail so long as some doctors fail to give their coöperation and help. All our

efforts to educate in this direction have failed so far to stop the "Malpractice Industry," which is extremely active in Michigan and especially so in certain districts. I attach to this report a letter from our attorney, Mr. Herbert Barbour, regarding the above.

MEDICAL DEFENSE NOT INSURANCE

The Medical Defense Plan is not and should not be considered insurance, as the term is applied to indemnity. While the Society will carry the case through all the Courts, it does not pay damages. It is entirely up to the doctor whether or not he wishes to carry indemnity insurance against malpractice; many of our members do and some do not. We suggest that, in carrying indemnity insurance, the physician exercise care in picking out a company of sound financial standing and with a reputation for fair play and honest dealings. I might say that our dealings with the various companies doing business in Michigan have been uniformly pleasant and most coöperative. Some of the companies are even limiting their policies to physicians who are members of their County and State Societies.

The Medico-Legal Committee besides furnishing machinery for the defense of suits is called upon to answer all sorts of questions and to give advice. Example:

What Insurance Company shall I use? Does an Interne come under the compensation act? Question of wording our membership cards, etc. Question as to ethics, advertising, signs and collection agencies. Authority as to whether an eldest son could give consent for husband in regard to a post-mortem. Question as to who owns X-ray films.

Letters regarding whether insurance companies, should pay expert medical fees to doctors appearing for defense.

Your Committee studied the proper wording for membership cards in M. S. M. S. The following wording was adopted as legal after consultation with our attorney, Dr. Warnshuis and the Council:

> "He is a member of the M. S. M. S. and is entitled to membership benefits as provided for in the Constitution and By-Laws of the State Society."

It is suggested that the component County Societies use the above on their membership cards.

SUMMARY OF CASES

Classification 1.—Medical Cases which have been completed; total 54—Medico-Legal Committee, 30.

Classification 2.—Medical Cases in which suits have been started but the cases have not been completed; total, 28—Medico-Legal Committee, 26.

Classification 3.—Medical Cases in which no suits have ever been started—in other words, Threats; total, 43—Medico-Legal Committee, 17.

A total of Medical Cases, 125.

CLASSIFICATION OF SUITS—PARTIAL

Fractures and dislocations, 31
Confinement cases, 4
Refusal to answer calls, 1
Abortion, 1
Injury of eye at birth, 1
} Total, 7
Tonsils—Hemorrhage and death, 6
Sponge in abdomen, 2
Safety pin in abdomen, 1
Tuberculosis, improper treatment, 1
Removal of nails of great toes, 1
Too tight bandages, 1
Herniotomy, bad results, 5
Appendicitis operation, 3
Osteopathy, right to perform operation, 1
Hemorrhoid operation, death, 1
Blood transfusion, 1
Lamp, 5
Electric knife, 1
Electric needle, 1
Hot water bottle, 2
X-ray burn, 1
Ether burn of eye, 1
Eye case, 4
Infection of nose, 1
Insurance case, 1. Placing woman in hospital without consent.
Lumbar puncture, 1
Failure to make proper diagnosis—spinal meningitis, 1
Failure to make proper diagnosis—infantile paralysis, 2
Removal of foreign body from wrist, 1
Claim doctor made patient morphine addict, 1
Massage, causing blindness, 1
Question of ownership of X-ray films
Patient jumping from window, 1
Operation without consent, 1

BASIS OF ACTION

1. Loose talk and unwise comments of fellow practitioners; this is one of the prevailing causes.
2. Dissatisfied patients and attorneys who hope to profit by instituting suit hoping for a judgment or a settlement by the doctor to avoid notoriety, etc.
3. Criticisms by relatives and friends of patients.
4. Not having X-ray made of all fracture cases before and after treatment. Don't let patients tell you they have not the money—they always get the plates for a suit. So many suits are brought in fracture cases that the advice as to X-ray is most important. We also suggest, in complicated cases, consultations.
5. Not keeping accurate records.
6. Negligence of assistants.
7. Contributory negligence.

SUMMARY

Your Committee has from time to time caused articles to be printed in the State Journal and the Wayne County Medical Bulletin calling attention to the prevalence of malpractice suits. Unfortunately the messages do not seem to reach those who need them the most. We suggest the following:

1. That the individual physician know the law regarding his rights and liabilities.
2. That the various County Societies hold discussions frequently on this most important question.
3. That doctors keep in good standing in their local and state societies. That they also carry indemnity insurance.
4. Watch out when a disgruntled patient comes back to you. Make perfectly certain that he is not trying to re-establish your status as a physician in his particular trouble.
5. It is suggested that physicians wait two years before suing for a bill. After two years time, no claim of malpractice can be brought as a counterclaim.
6. That we all stand together and remember "The Golden Rule."

WHAT TO DO IF THREATENED WITH A SUIT

When sued or threatened with a suit, a member should immediately notify the Chairman of the Medico-Legal Committee. In this manner he may have the assistance of his Chairman of the local county society. He will then be sent blanks to be filled out in duplicate and return at once to the Chairman with a copy of any papers served on him. Provided the physician sued is eligible to defense under the rules and regulations of the Defense Plan, the Committee takes the necessary steps to carry his defense to a successful termination.

When the defense is conducted by the State Society, members of the county medical societies, with-

out thought of pecuniary return, should give not only their moral support, but as far as possible take an active part in the conduct of the trial, doing all in their power to assist.

CONCLUSION

The Chairman wishes to thank the members of the Committee for their hearty coöperation in carrying on the work of the Medico-Legal Committee.

Thanks are also due Mr. Herbert Barbour and his office. Mr. Purdy has been most helpful and also Mr. Desenberg. There is a tremendous amount of work done by the Committee and Mr. Barbour's office which does not show in this report.

Respectfully submitted,
MEDICO-LEGAL COMMITTEE
WM. J. STAPLETON, JR., M.D., *Chairman,*
ANGUS MCLEAN, M.D.
J. G. MANWARING, M.D.
J. D. BRUCE, M.D.
EARL I. CARR, M.D.

8. Official statement by the Council on the report of the Committee on the Cost of Medical Care. The Chairman and Secretary presented the following statement, which, after mature discussion and certain revisions, was adopted upon motion of Councilors Cook-Urmston.

OFFICIAL STATEMENT BY THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY, ADOPTED JANUARY 12, 1933

Economic distress creates a demand that special efforts be made to provide adequate medical care for all who are in need and to safeguard the health welfare of our citizens. The medical profession of Michigan, represented by the State Medical Society, always has and always will concern itself with this problem that is so vital to public welfare and protection. The Council of the Michigan State Medical Society therefore issues the following statement:

Various programs and plans for providing medical care have been and are being advanced. Insurance corporations and lay groups and clubs are holding out to provide medical care upon payment of premiums that vary as to their assessment rates. None of these proposals are adequate, many are unsound in principle and practice, some are palpably detrimental. *There is no single plan or scheme that is applicable to every community.*

Such programs may gain impetus from the recent report of the Committee on the Cost of Medical Care. Careful analysis of that report and its recommendations should be undertaken before any attempt is made to institute them.

The profession is in accord with the report's advocacy of greater attention to disease prevention, immunization and sanitation. Where the majority report leans to plans which are definitely socialistic in character, we feel confident that the proper quality of medical care can only result from and by maintaining the personal and confidential relationship between patient and physician.

We are fully conscious that the present day application of our knowledge of diagnosis, treatment and prevention of disease lags behind the needs. We are equally conscious that there is an unequal distribution of the best quality of medical care, together with an unequal distribution of its costs. We will not admit that the solution of the problem requires such an over-turning of the traditions of medicine as is suggested in the majority report.

The profession is sympathetic with the Minority Report and adopts it as expressive of the principles that must be observed in sound, adequate medical practice. We recommend that these principles be observed and adhered to when consideration is being given to the formulation of local plans and policies for providing adequate medical care.

The State Medical Society directs attention to the fact that the majority of the competent, legally qualified ethical physicians of any community belong to their county medical society. These members should maintain contact and join in study and labor with all local officials, agencies or organizations concerned with health activities and welfare. They are intimately familiar with local conditions and needs. They are in a position to advise wisely and soundly for the community's best interests. Consulted freely, their advice and guidance will be of greater practical value than that of distant theorists and idealists who in the main lack practical bedside practice experience.

The medical society of every county, through its members, is prepared and willing to be of helpful assistance in developing plans and rendering professional service for the providing of adequate medical care for all classes. In the main this is a local problem to be solved by the citizens of local communities.

The Council, Michigan State
Medical Society
B. R. CORBUS, *Chairman,*
F. C. WARNSHUIS, *Secretary.*

9. The Council then recessed to join at luncheon the Joint Committee on Public Health Education.

APTERNOON SESSION

10. Following recess the Council was called to order by the Chairman with all the Councilors present who were in attendance at the morning session.

11. Councilor Henry R. Carstens, Chairman of the Finance Committee, presented the following report which consisted of presentation of the budget for 1933. Certain items consisting of tentative figures were presented for the full discussion of the Council. Upon motion of Councilors Brunk-McIntyre, the Editor's salary was fixed at $2,500.

Upon motion of McIntyre-Neafie an appropriation for stenographic services for the editor was fixed at $600.

Upon motion of Cook-McIntyre, the following budget was approved for 1933:

BUDGET 1933

INCOME

3,300 Members at $8.75	$28,875.00
Interest	900.00
	$29,775.00

APPROPRIATIONS

Defense Fund at $2.00	$ 6,600.00
Journal Subscriptions at $1.50	4,950.00
Rent, Phone, Light and Power	1,400.00
Annual Meeting	1,250.00
Post-Graduate Conferences	750.00
Committee Expense	500.00
Legal Committee	750.00
Council Expense	1,200.00
Postage	400.00
Delegates A. M. A.	500.00
Joint Committee	250.00
Stenographic	2,500.00
Secretary	4,000.00
Survey Committee	3,000.00
Society General Expense	1,500.00
Contingent for Legislative and Special Committees	225.00
	$29,775.00

JOURNAL

Advertising	$ 6,500.00
Subscriptions	4,950.00
	$11,450.00

EXPENSES

Printing	$ 8,000.00
Editor	2,500.00
Editor's Expense	600.00
Postage	50.00
Reserve	300.00
	$11,450.00

12. In view of the recommendation of the auditors and after reviewing the contract with the Bruce Publishing Co., upon motion of Boys-Urmston, the item of $3,000 set up as a reserve for future sales of the History was removed from the liability account of the Society.

13. The report of the Committee on County Societies, Councilor Boys, Chairman of the Committee, submitted the following report:

COUNTY SOCIETIES

A. We recommend the adoption of the annual report of the Secretary as read and wish to compliment him upon its completeness and the efficient manner in which the work of this office has been carried on during the past year.

B. The Medico-Legal Committee's report. Concurring with the discussion engaged in by the Council, the Committee recommends that our By-Laws be changed so as to re-organize the Medico-Legal Committee by creating the office of Secretary of the Medico-Legal Committee, who shall be its executive officer active under the supervision of the committee and that such amendments be presented at the next meeting of the House of Delegates.

C. We endorse the report of the Chairman of the Medico-Legal Committee and commend the diligence of the Chairman.

D. We endorse the legal form suggested for membership cards and recommend its adoption by all county medical societies who issue individual membership cards.

E. The committee recommends a strict compliance with the provisions of the By-Laws that provide that legal defense shall only be provided to those members of the society who are in good standing.

F. We recommend that no reimbursements be made to members giving testimony in behalf of other members, and are of the opinion that such service should be rendered as a matter of professional courtesy.

G. We approve and endorse the official statement made by the Legal Counsel of the committee.

H. As revised we endorse and approve the official statement of the Council upon the report of the Committee on the Cost of Medical Care, and recommend that it be given state-wide publicity.

Signed by the Committee,

C. E. BOYS, *Chairman*
B. H. VAN LEUVEN
PAUL URMSTON.

14. Upon motion of Neafie-McIntyre, the report of the Committee on County Societies was adopted.

15. The Chairman of the Publication committee, J. D. Bruce, presented the following report, which, upon motion of Neafie-Boys, was adopted.

REPORT OF PUBLICATION COMMITTEE

Your Committee has had the opportunity lately to look over a number of state journals, and it is gratifying to know that the MICHIGAN STATE MEDICAL JOURNAL does not suffer by comparison. There have been discussions from time to time concerning the employment of a full-time editor-secretary. There is much to say for full time—as Dr. Johnson used to say, "I dread the man of one book." Entire devotion to one job, everything else being equal, is a very practical way of getting the job well done. However, as one scans the pages of our Journal and views the widely diverging interests shown in the products of the editor and of the secretary, one must be impressed with the wide variation in personality, taste and equipment as each one functions in his special capacity.

There always is a quickening of interest with the coming of the Journal. Without a special study one gets the impression that there is a singular absence of padding or filler. Space always is conserved and the scientific articles pared down with no loss of educational value and, oftentimes, with added clarity of expression. The editorial comments and reviews are read with delight and with the feeling that one is in the presence of a master of the written word and a connoisseur of ethical and esthetic values. In the secretary's columns one takes a refreshing plunge into the very midst of organizational activities, where facts and figures are clearly presented, and friends and associates from distant counties are brought most realistically to our fireside.

The difficulties of the financial situation over the last three years have necessitated many economies and the discussion of many more. In regard to a reduction in the size of the Journal, we have considered reducing the number of scientific articles, of reducing the editorial space, and of restricting the space devoted to organizational activities and county society reports.

If the leisure now enforced upon us is to be profitably conserved, it is a time, above all others, when the scientific spirit should be encouraged. The increasing number of scientific articles coming to the Journal is unmistakable evidence that our members are making the most of this opportunity for research and study. To restrict them in their laudable desire to bring the results of their work to the attention of the profession could not be logically defended and, within reasonable limits, the pages of the Journal should still be open to them. In addition to this, those of us untrained in research methods and ungifted in the art of writing should not, with time at our disposal, be denied access to the results of their labor.

On the editorial pages appear not only discussions of strictly medical interest, but excursions into other fields—in science, in philosophy, and into those broader channels of human interest, which have for all time contributed so notably to the usefulness of those occupied in fields of higher technics and learning, and probably more particularly in the field of medicine. To place further limitations upon the reasonable space now devoted to this important function would, we believe, be unfair to our membership at a time when reduced incomes seriously interfere with purchase of books and periodicals necessary for the profitable employment of leisure periods.

In normal times, whatever these may be, one might make an interesting academic discussion of the relative merits of the three divisions under consideration—the scientific, the editorial, and the organizational.

Convinced of the soundness of our views of the two preceding problems, we recommend, with equal conviction, the continuance of the space devoted to organizational activities as important factors in the successful functioning of our Society. In these columns will be found reports of all activities, from those of the administrative organization and special study groups to accounts of Society affairs. In addition to these are the reports of the activities of various agencies affecting, directly or indirectly, our membership. Large numbers of our membership have no access to this information except through these columns.

The question advanced by the Executive Committee on the desirability of uniting with the State Dental Society in a combined dental and medical journal presents many attractive features. Unofficial conversation with some members of the Council of the State Dental Society reveals interest on their part. Your Committee feels that this suggestion is of sufficient importance and promise to merit intensive and protracted study. There is, indeed, much common ground upon which to build such a prospected structure. Closer contact between medicine and dentistry would doubtless reveal more common problems than are now apparent, and your committee is in accord with any effort that tends to bring our professions into positions of greater mutual usefulness. We recommend further study of this problem and further discussion with the editor of the State Dental Journal and with members of the Council of the State Dental Society.

Respectfully submitted,

A. S. Brunk,
J. E. McIntyre,
J. D. Bruce.

MISCELLANEOUS AND NEW BUSINESS

16. Upon motion of Powers-McIntyre, the Executive Committee was empowered, after consultation with the committee on Medical Survey, to designate the date of the special meeting of the House of Delegates to receive and consider that committee's report. Carried.

It is the understanding of the Council that during the latter part of February the Committee will begin distributing to members of the House of Delegates certain summarizations of its work in order that delegates may be more intelligently informed upon the final report that is to be rendered by the Committee. Upon Councilor Powers' suggestion the Secretary was directed to impart this information to the county societies in order that there might be no misunderstanding as to the reason that impelled postponement of the date for holding this special meeting until the latter part of March.

17. The Council gave consideration to the place for holding the special meeting of the House of Delegates. Nominations were received from Bay City, Grand Rapids and Detroit. Upon ballot Detroit was designated as the place for holding the special meeting of the House of Delegates.

18. The Secretary announced the Annual Conference conducted by the American Medical Association, to be held in Chicago some time in February. Upon motion of Neafie-Boys, President Robb, Chairman Corbus, and Dr. W. H. Marshall were designated as the official representatives of the Michigan State Medical Society to attend this conference.

19. Upon motion of Neafie-McIntyre, the Council made the following ruling in regard to the expenses of our delegates to the American Medical Association: The expenses of Delegates to be limited to $8.00

per day while in actual attendance at the meetings of the House of Delegates of the American Medical Association, plus railroad fare and pullman.

20. The Secretary presented the list of guests nominated by the scientific sections. Upon motion of McIntyre-Brunk, this list was approved and each section given authority to invite one invited guest for their section sessions.

21. Upon motion of McIntyre-Powers, the Chairman of the Council, the President of the Society, and the President-elect were authorized to formulate a list of members to be submitted to the Governor for appointment on the Board of Registration in Medicine in compliance with the Medical Practice Act.

ELECTIONS

22. Upon nomination of Councilor Neafie, supported by several, Dr. F. C. Warnshuis was re-elected secretary for the ensuing year.

Upon nomination of Councilor Van Leuven, supported by several, Wm. A. Hyland was elected treasurer for the ensuing year.

Upon nomination of Councilor McIntyre, supported by several, J. H. Dempster was re-elected editor for the ensuing year.

Upon nomination of Councilor Cook, supported by several, the present Medico-Legal Committee was re-elected for the ensuing year.

23. The Council then devoted considerable time to the discussion of legislative matters. Upon motion of Councilors Cook-McIntyre, the resolutions introduced into the House of Delegates relative to amendments of certain acts dealing with crippled children was referred to the Legislative Committee with instructions that they exercise their judgment and best endeavors to securing the enactment of the proposed amendment.

24. Upon motion of Boys-Burke, the Secretary was authorized to call a conference of county secretaries at such time and place as his judgment, and approval by the Executive Committee, determined.

25. President Robb presented several general matters, and also requested an expression as to the attitude to be taken by the profession to hospitals that instituted diagnostic clinics for pay cases. After discussion it was decided no expression be recorded until after the Council on Medical Education and Hospitals of the American Medical Association imparts its attitude during the Annual Conference to be held in Chicago in February.

26. There being no further business the Council adjourned at 5:15 P. M.

F. C. Warnshuis,
Secretary.

GENERAL NEWS AND ANNOUNCEMENTS

The American College of Physicians will convene in Montreal, February 6 to 10.

Dr. R. H. Baker of Pontiac is the new editor of the Bulletin of the Oakland County Medical Society.

Mrs. Catherine T. Hawken, mother of Dr. William C. Hawken of Detroit, died on December 11, 1932.

The infant son of Dr. Hayden Palmer of Detroit died on January 7, 1933, from the effect of a peanut which lodged in a bronchus.

The Annual A. M. A. Conference on Medical Education, Licensure and Hospitals will be held in the Palmer Hotel, Chicago, February 13 and 14.

The Muskegon County Medical Society gave a dinner on January 25, 1933, honoring President-Elect George L. LeFevre, who assumes the State presidency this year.

Dr. F. C. Warnshuis was an invited speaker on the program of the annual meeting of the Missouri Pacific Railroad surgeons held in Kansas City, January 26 and 27, 1933.

Section officers met in Detroit January 11, and completed details for the Scientific program for the annual meeting to be held in Grand Rapids, September 12, 13, and 14, 1933.

Dr. L. H. Newburgh of the University of Michigan Medical School addressed the Genesee County Medical Society January 11, 1933, on the subject The Relation of Weight to Disease.

Dr. J. M. Robb, President of the Michigan State Medical Society, addressed the Annual Secretaries Conference of the Indiana State Medical Society at Indianapolis, January 22, 1933. His subject was "What Should be the Attitude of the Physician Towards Health Insurance Plans."

Suit was filed against a prominent member of the Michigan State Medical Society for half a million dollars, the plaintiff claiming that in a hernia operation he suffered exposure and embarrassment. The case was settled by the chairman of the medical defense and the insurance company without coming to court, for $50.00, which speaks well for the efficiency

of the executive board of medical defense of the Michigan State Medical Society. One ten thousandth of the alleged damages was awarded the plaintiff.

A special meeting of the Luce County Medical Society was held on the evening of December 30, 1932, at the home of Dr. F. P. Bohn, with Dr. and Mrs. Bohn as hosts.

The object of the meeting was purely social as a farewell gathering for Dr. H. E. Perry, who was elected to the State Legislature and will leave us shortly to attend the coming Legislative session. As a token of appreciation for his untiring efforts in behalf of the welfare of our Society, and the medical profession in general, he was presented with a leather brief case. Dr. Perry has practiced in Luce County for the past thirty years, during which time he has unselfishly devoted himself to the sick and needy and upheld the true ideals of the profession and is honored and loved by all that know him. This is his initial entrance into state politics and we want every one to know that the medical profession has a "real" friend in Lansing.

George F. Swanson, *Secretary.*

MAJORITY VS. MINORITY REPORT DISCUSSED

On January 20, 1933, Professor John Sundwall of Ann Arbor and Dr. Harry W. Plaggemeyer, of Detroit presented a joint discussion on the "Report of the Committee on the Costs of Medical Care" before the staff of Grace Hosptial, Detroit. This was an open meeting and a number of laymen interested in general social economics were present. The large lecture hall at Grace Hospital was crowded, which shows the tremendous interest in this report by everyone who has followed this subject. The presentation of the report as a whole, with special emphasis laid upon the majority report, was made by Professor Sundwall of Ann Arbor. His presentation was complete from every angle; he deplored the fact that there had to be more than one report. He felt that had there been further time for study, there would have been only one report and the general tnor of his talk was toward group planning and group purchase of medicine, with all due regard for the position of the general practitioner.

Dr. Harry W. Plaggemeyer, Past President of the Wayne County Medical Society, analyzed the minority report in a discussion of the difference between collectivism and individualism in medicine. He stressed the feeling that the American people had a tendency to "soak" somebody and some class and that they would vote for anything once and then spend the rest of their lives "yelping" to have it repealed, after they had observed the results of their error. This he said would be the case if we allowed industrialism and politics to enter the realm of medicine and he closed with the prediction that, "the sick and sensitive patient loves his doctor because of the personality he puts into his individual relationship and you cannot ever standardize personality. So long as our social order is based on the family unit and around the family life, so long will you find the fire burning before the homely shrine of the family doctor."

Both speakers agreed there was unanimity in the two reports in regard to strengthening of public health services, the chapter on Basic Educational Improvement, and the fact that the family doctor should be restored to the central place in medical practice.

The discussion which followed was led by Dr. Charles Kennedy and Mr. John Lovett, Secretary of the Manufacturers Association. Mr. Lovett talked on the situation in England and Russia, which he has observed, and the burden of his discussion was "God help the public if their type of system is tried here, on medical practice." Other discussers were Dr. W. LeRoy Hull, Dr. Milton Darling, and Professor Berghman of Central High School, who was introduced as representing the Socialist Group. Also, Dr. Thomas from Hamburg third Orths-Krankenhaus gave the situation in Germany and presented a bitter outlook based on the status of his medical friends in Hamburg who are, according to him, strangled by the system of insurance which obtains throughout Germany.

THE LINEUP AT LANSING

The fifty-seventh Legislature of Michigan opened its sessions on Wednesday, January 4, with complete harmony in the ranks of the Democrats. The Senate has seventeen Democrats and fifteen Republicans and is headed by Lieutenant Governor Allan E. Stebbins of Ionia (D); Senator Leon D. Case of Watervliet (D) was elected President pro tempore. The House of Representatives, composed of fifty-five Democrats and forty-five Republicans, unanimously chose Martin R. Bradley of Hermansville (D) as its speaker; Tracey W. Southworth of Monroe (D) was selected as Speaker pro tem.

Five physicians and two osteopaths are members of the 1933 Legislature. The Doctors of Medicine include Senator James T. Upjohn of Kalamazoo (R); Representative Henry E. Perry of Newberry (R); Representative Duncan A. Cameron, Alpena (D); Representative John G. Rulison, Lansing (D); and Representative Edward F. Fisher, Dearborn (R). The osteopaths are: Senator Claude B. Root, Greenville (D), and Representative Lester T. Barber, Edmore (D).

The Senate Committees were announced on the opening day of the session. The Public Health Committee is composed of: Charles B. Asselin, Bay City (D), railroad worker; James A. Murphy, Detroit (D), lawyer; Claude B. Root, Greenville (D), osteopath; Dr. James T. Upjohn, Kalamazoo (R), physician, and Gordon F. Van Enenaan, Muskegon (R), lawyer.

Ninety-five bills were introduced in the House at its opening session. These were drafted by the Legislative Commission studying government costs and if adopted will save the taxpayers approximately $5,000,000.00. They do not seem to affect the medical profession directly except in the elimination of the Crippled Children's Commission upon which several physicians are serving without pay.

Governor Comstock's message included: "This Legislature will be deluged with a flood of requests for legislation purporting to cure each and every one of the ills we are suffering." It is anticipated that 1,500 bills will be introduced, every one of which will be printed this session, which is a departure from former rules. The last session of the Legislature had a few more than 1,000 bills presented to it. About 125 to 150 bills will be of especial interest to the medical profession and must receive careful study, serious consideration, and appropriate action.—Condensed from the *Bulletin of the Wayne County Medical Society.*

"Books are the open avenues down which, like kings coming to be crowned, great ideas and inspirations move to the abbey of man's soul. There are some people still left who understand perfectly what Fenelon meant when he said: 'If the crowns of all the kingdoms of empire were laid down at my feet, in exchange for my books and my love for reading, I would spurn them all.'"

—Ernest Dressel North.

SOCIETY ACTIVITY

INGHAM COUNTY MEDICAL SOCIETY SCOOPS THE STATE

PAID ON DECEMBER 20, 1932—82 MEMBERS.

On December 20, the regular meeting of the Ingham County Medical Society was held in the Guild Hall, Lansing. Seventy-two members were present. Your state secretary was present and participated in the evening program, which was devoted to a discussion of medical economics, led by Doctors John Wetzel and L. J. Christian.

Previous to the program, the members sat down to an Assyrian dinner prepared by Assyrians of Lansing. It was a good dinner. Incidentally, Ingham members are carrying out a plan of cultivating and securing the good will of local residents representing varied nationalities. Each society meeting is a dinner meeting. The dinner is characteristic of the nationality that serves it—German, Swedish, Jewish, Italian, Mexican, etc. During the dinner some member briefly sketches some historical facts of the nation or race whose food is being eaten. This plan fosters the goodwill of these people for the medical profession. A most commendable activity that may well be initiated in other counties.

Following the dinner, the treasurer, Dr. T. I. Bauer, arose and announced that the society had too much money in the bank. The members expressed a desire to spend it. Thereupon the treasurer handed your state secretary a check for $717.50 in payment of *1933 state dues for all of the society members.* This surely was a scoop and beating other counties to it. This scoop was made possible by reason of the fact that the society is working under a contract with the city for taking care of the indigents. It was demonstrated anew that unity of action achieves and yields profits. Our hat is off to Ingham men who are exemplifying a splendid spirit of organizational activity and mutual helpfulness.

The six-page Bulletin of the Ingham society may well be copied by other counties. Under the editorship of Dr. H. L. French, secretary, and Dr. T. I. Bauer, treasurer, it is a splendid publication, filled with interesting, inspiring copy.

And here is another worthy activity. In January, the society sponsored a public meeting, addressed by the National Secretary of the Economy League. Legislators and state officials were invited guests. It is such work that enhances organizational prestige and establishes community influence. It is activity like this that causes a society to accept its full responsibilities. Similar opportunities exist in every county.

So, under the presidency of Dr. W. E. McNamara, sustained by a one hundred per cent support of his members, Ingham County walks away with the 1933 banner and is on its way for a successful year. Congratulations, members of Ingham.

STEWARDSHIP

This issue contains the minutes of the January session of the Council. The reports rendered and the action recorded reflect the stewardship responsibility of the Council. Read them to become informed as to organizational activity directed in your behalf.

SOCIAL MOVEMENTS*

B. R. CORBUS

Mr. President and Members of the Kent County Medical Society:

Economic pressure, as it affects the medical profession, increases. The prolonged period of depression brings forth ill considered panaceas from both within and without the profession, whose objective is the cure of social ills long recognized but now become acute. The attitude of various lay bodies and some members of the profession seems to be that of the old adage—"When the case can be no worse the desperatest is the wisest course." No longer content to proceed along evolutionary lines, the tendency seems to be to kick over the traditions of medicine, the professional set-up which has shown a degree of success equal to or beyond that of any social body, and start out on experiments which are definitely of a socialistic type. Interestingly enough, some of the proposed schemes have been tried out in Europe and have been shown to be inadequate from the public standpoint, unfair to the physician and tremendously costly to the state.

Your councilor has deemed it wise, in this communication, to consider with you

*Councilor's Address to Kent County Medical Society, December 14, 1932.

very briefly this seriously threatening situation. You will, of course, want to read carefully the report of the committee on the Cost of Medical Care, and you should read equally carefully the report of the Commission on Medical Education, whose report just issued is the result of seven years' work of a committee of educators headed by President Lowell of Harvard. Their conclusions, you will note, are almost diametrically opposed to the majority report of the first committee. In this discussion I shall make free use of some of their conclusions and wording.

First, let it be said that the medical profession will favor any reasonable plan which will make a high quality of medical care more generally available. We are fully conscious of the unequal distribution of such care and we fully realize that the present-day application of our knowledge of diagnosis, treatment and prevention of disease lags sadly behind the needs.

Let it not be said, however, that the medical profession has stood calmly by and made no attempt to meet this problem. The Michigan State Medical Association, in connection with the University of Michigan and other allied organizations, has, for many years, through public forum, newspapers, and more recently by radio, brought knowledge of the newer things in medicine, instruction in the prevention of disease and advice on hygiene, to hundreds of thousands of our citizens. The number of individuals contacted through public forum alone has averaged upwards of two hundred thousand a year. Thousands of dollars have been expended by your society in the effort to raise the standard of medicine, and especially in the rural communities, by bringing post-graduate instruction to the door of the doctor.

The State Society works with the Couzens Foundation, the Kellogg Foundation, the Crippled Children's Commission and the University of Michigan, in a united effort to distribute modern medical services to that part of the population which otherwise would be deprived of such service.

We have been willing, as a society, to expend no inconsiderable amount of money for a study of these problems. A few years ago a study was made of the hospital situation in the state. In the past year or two, as you very well know, your society has been, through its special committee on Survey of Health Agencies, busily engaged in compiling data and studying the situation. We have expended, during the past year, approximately five thousand dollars in this study, and now are about ready to make the report. The report of the Public Relations Committee of this Kent County Medical Society is a most outstanding contribution to the subject. Not only is it recognized as being an interesting and valuable contribution, but it has caused other counties in other states to institute similar surveys. We want to know the situation. We would have this problem solved in a sane way. We are certain that there is no panacea for this emergency, and that there is no solution of the problem which will fit the country as a whole. This is essentially a local problem, with great local variations, which is to be solved properly only after a study of properly compiled local data. We object to precipitous revolutionary action. "There is some danger that public thinking has been maneuvered into an unfortunate position recently in regard to this whole matter, for emphasis is being placed upon the cost of medical care, rather than upon the support of an adequate medical service of high quality," and this medical care is too often interpreted as physicians' fees.

The doctors, as a class, profit relatively little as compared with the total cost of medical care. Hardly a third of the expenditure accrues to him. The mean income of the doctor, considering the money he has expended for education, the responsibility he carries and the hardships of his life, is astonishingly low. Fifty per cent of doctors have a net income of under three thousand dollars a year. Even in the days before the depression the economic problem of the average physician was becoming increasingly precarious by reason of the growth of governmental, state and community programs in competition with him. In these days of depression the situation has developed in seriousness, how serious only those of us in the profession can realize. The older men among us have seen the successful program of preventive medicine result in a tremendous improvement in the health of the children and an equally great decrease in the number of contagious diseases, until today, and it will be increasingly so, medicine is more and more limited to the care of the diseases of adults and old age.

We are as appreciative as any layman,

that medical care costs too much, but we are not unconscious of the fact that large fortunes have been made by individuals whose profits came to them through the efforts of their employees. In the days of prosperity these profits were not reflected in the worker's wage to any proportionate degree. Now, in this period of unemployment, employers and workers alike look to the doctor to carry the burden of sickness and to the state and the city to carry the burden of feeding and housing. Even in the best of times there was little margin left for medical care for these individuals. How could there be when, in good times, the average wage for workers lay between twelve hundred and thirteen hundred dollars per year?

We are most anxious that some plan be developed which will help to solve the problem, some plan which will take the load of forced charity from the shoulders of the physician, some plan which will make it possible for the small wage earner to pay his own way.

However, we must oppose any plan which shall be imposed upon us, which will lessen the responsibility of the physician in the care and treatment of the sick, or denies him the rewards of special ability and character.

We must guard ourselves against plans hurriedly conceived, unsafeguarded, tending toward commercialism and a breaking down in ethics and the accepted standards of medical practice. The quality of service rendered, and not the quantity, must be at the heart of any well conceived program. As a profession we are apprehensive that any attempt to interfere with the individual service of the physician to his individual patient will lower the quality of that service, and will react, ultimately, to the disadvantage of the patient.

If there was ever a time when the solidarity of the profession was necessary, it is now. The profession must maintain a unified front, and look to its leaders for guidance, else the result will be a sort of an Americanized medical Sovietism.

I predict that the majority report of the Committee on the Cost of Medical Care will stimulate all sorts of commercial schemes whereby the present exigencies of the doctor will be capitalized to the benefit of the promoters. Certain charitable institutions will find, in this report, encouragement to some plan which will enable them to cut down their overhead at the doctor's expense. We would not block any plan which will make possible better care for the poorly paid individual. Accustomed to giving charity, we have no desire to evade an obligation accepted as one of the tenets of our profession, but the medical profession will desire to have a voice in the distribution of its charity and a voice in the formulation of any plan for the care of the sick which affects, in a vital manner, the conduct of their profession.

This is a time to make haste slowly and a time to be on guard against illogical panaceas, commercialized plans such as corporate contracts, ill advised insurance groups, or what not, which might well result in a disintegration of our professional body. We set our teeth and forge ahead with the ambition to give honest service, to live up to the ethics of our profession, and hope that the doctor, in joint action with the economist and the social student, may work out a plan whereby a good quality of medical service may be available to every one, while at the same time the doctor's interest is conserved. It will be to the interest of public welfare as well as to his own interest, if a way is found for the doctor to continue to lead a truly independent life, with sufficient income to make it possible for him to give the best that medicine has to offer to his patients, and to make life for him reasonably happy and satisfactory.

SPECIAL MEETING OF THE HOUSE OF DELEGATES

The minutes of the mid-winter session of the Council are contained in this issue. Reference is made to a special meeting of the House of Delegates. The Council following consultation with the Chairman of the Survey Committee empowered the Executive Committee to designate the date for the special meeting.

The Committee advises that it will be absolutely impossible to complete its report before March 15. Therefore the special meeting will be held sometime between March 15 and 31.

Beginning late in February the Committee will commence sending to delegates summarizations and findings. Delegates will thus be accorded opportunity to familiarize

themselves with the Committee's findings and thus informed they will be able to consider the Committee's final report with better understanding.

Official notices will appear in the March issue.

POST-GRADUATE OPPORTUNITIES

Every doctor should plan to spend some time in post-graduate work each year. He owes it to himself and to his patients. Scientific progress is ever forward. To remain abreast one needs to read, study and see. Your State Society in coöperation with the University Medical Department provides such opportunities. You are urged to embrace them.

This spring the following opportunities have been arranged for all our members:

THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL and THE MICHIGAN STATE MEDICAL SOCIETY

Intensive Courses for 1933

Pulmonary Tuberculosis—March 20-24.
Diseases of Metabolism—March 27-31.
Diseases of the Heart—April 3-7.
Ophthalmology and Otolaryngology—April 24-29.
Proctology—May 15-27.
Practitioners' Course—June 19-July 1.
Gynecology and Obstetrics—June 19-July 1.
Roentgenology—June 26-Aug. 4.
Serology and Clinical Microscopy—Throughout the year.
Physical Therapy—Throughout the year.

Registration limited. Nominal fees. For further information address: Director, Department of Post-Graduate Medicine, University Hospital, Ann Arbor, Michigan.

Write to the Director and arrange to take some of these courses. We are certain you will be pleased with the benefit that will accrue.

COMMENTS

The minutes of the January Council session are contained in this issue. All members are urged to read them.

There are several new advertisements appearing in this issue. Patronize all of our advertisers. Give them preference in your business dealings. Ask detail men if their firms advertised in your Journal and withhold patronage unless they do.

Dues are payable. Send your remittances to your County Secretary. Please be prompt.

Muskegon County is the second 100 per cent society. Dues for all of its members for 1933 were received on January 8.

It is reported that there is a good opening in Ontonagon for a general practitioner.

BATTLE CREEK PLAN

You asked me to give you an outline of the plan the Doctors have initiated in Battle Creek for taking care of the medical needs of the indigent people.

The doctors have formed an incorporate body known as the Battle Creek Academy of Medicine and Dentistry—non-profit sharing. This body has contracted with the City Commission to render all ordinary medical and surgical care through its organization for a flat price of $1,000 per month, out of which we pay our own expenses of administration and provide our own investigator. The strong points about our organization are the investigating committee and the auditing committee. All hospitalization and unusual expenses such as drugs, appliances, etc., are paid for by the City. This contract is in force for one year. The largest township population, outside the City, has also taken a similar contract with us, the money being much less, of course. We feel that we will accomplish two things: First, Take the practice of medicine out of the hands of lay dictators and return it to the doctors' offices. Second, We feel that the family doctor is most capable of preventing temporary financial embarrassment from turning into the state of chronic pauperism. The dentists are not included in our $1,000 per month contract, but have their own funds to the extent of $900 per year, the Academy being only concerned in the investigating department of the activity. We have been running only five days and are learning much, but are not sick of our job so far. I shall be pleased to give you an accurate synopsis of this set-up for the JOURNAL if you feel that it would be desirable. Jackson County is already acting on some of our plans.

Sincerely yours,
C. S. GORSLINE, M.D.

INCIDENCE AND VARIETY OF HEART DISEASE IN SCHOOL CHILDREN OF SAN FRANCISCO

According to Ina M. Richter, San Francisco, congenital heart lesions are not uncommon, and they give rise to symptoms and physical disability, though to a far less degree than do rheumatic endocardial and myocardial lesions. The valvulitis characteristic of the rheumatic syndrome is not uncommon in a mild climate like that of San Francisco, but its manifestations are much less dramatic and its inception is far more insidious. Scarlet fever and diphtheria are apparently factors in the causation of organic cardiac disease, and the type of lesion found in these cases suggests the myocardial lesions of later life. A children's health center furnishes an opportunity for the study of the causation of functional murmurs.—*Journal A. M. A.*

COUNTY SOCIETIES

ALPENA COUNTY

At the annual meeting of the Alpena County Medical Society, held on December 15, 1932, the following officers, all of Alpena, were elected for the year 1933: Dr. L. F. Secrist, president; Dr. F. J. O'Donnell, vice president; Dr. W. B. Newton, secretary-treasurer; Dr. E. L. Foley, delegate; Dr. H. J. Burkholder, alternate delegate; Dr. E. L. Foley, legal representative.

The society went on record as in favor of the Minority Report of the Committee on the Cost of Medical Care.

Three new members were elected as follows: Dr. E. L. Parmenter and N. C. Larsen, Alpena, and Dr. R. B. Howard, Rogers City.

W. B. Newton, M.D., *Secretary.*

BAY COUNTY

Wednesday evening, December 14, 1932, retiring President Slattery, according to local custom, tendered the members of the Bay County Medical Society and guests a banquet at the Wenonah Hotel.

Following the banquet, the annual meeting, one of the largest in the history of the Society, was held. The following guests were present: Dr. Julius Powers, Saginaw, Councilor, 8th district; Dr. Claude Keyport, Grayling, member State Board of Medical Registration; Dr. C. C. Clippert, Grayling; Dr. Fred Baker, Pontiac; Dr. Arthur Murtha, Pontiac; Dr. G. M. McDowell, Howell Sanitarium, Howell; and Dr. J. McIndoe, Howell Sanitarium, Howell.

Dr. Slattery read, as the President's address, a paper dealing with many current medical problems, including Veterans' Relief, Health Insurance, and Indigent County Relief.

Following the meeting, Dr. Slattery held "open house," at his residence on North Lincoln Avenue.

The following were elected to office for the coming year: President, Dr. E. S. Huckins; vice-president, Dr. J. H. McEwan; secretary-treasurer, Dr. L. Fernald Foster; censor, Dr. A. W. Herrick; medico-legal councilor, Dr. A. W. Herrick; permanent delegate, Dr. L. Fernald Foster; alternate delegate, Dr. A. D. Allen.

The Society has under consideration changing the name of vice president to president-elect and the establishment of an executive committee.

Before adjourning, President Slattery showed a number of reels of motion pictures, which he has been accumulating for several years. They are personal flashes of practically every member of the Society.

The members listened to the annual reports of all officers and committees, after which the meeting was adjourned.

L. Fernald Foster, M.D.,
Secretary.

CHIPPEWA COUNTY

New officers of the Chippewa County Medical Society elected at the last meeting are: President, Dr. F. J. Moloney; vice president, Dr. F. H. Husband; secretary-treasurer, Dr. W. F. Mertaugh.

The committee appointed so far is the advisory chart committee for the year, which consists of: Dr. C. Willison, Dr. S. H. Vegors, and Dr. F. C. Bandy.

Dr. Lyle F. Schmaus has been admitted as a member to the Chippewa County Medical Society. Dr. Schmaus is a graduate of the State University of Iowa.

W. F. Mertaugh, M.D., *Secretary.*

DICKINSON-IRON COUNTY

The annual meeting of the Dickinson-Iron County Medical Society was held at the Milliman Hotel, Iron Mountain, Mich., Tuesday evening, December 13, 1932.

Dr. W. H. Huron, of the medical staff of the Ford Motor Company, exhibited a patient recovering from tularemia and then read a paper on that disease. Later a lively discussion followed relative to petitioning the County Board of Supervisors in regard to a more satisfactory method of handling the county indigent cases.

Following the program the following officers were elected for 1933: President, Dr. George Boyce, Iron Mountain; vice president, Dr. W. J. Kofmehl, Stambaugh; secretary and treasurer, Dr. Charles P. Drury, Iron Mountain; chairman of the public relations committee, Dr. W. H. Huron, Iron Mountain.

Charles P. Drury, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The January meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, January 12. Eighteen members and five visitors had dinner together.

In the absence of President Carney, Vice President Hobbs called the meeting to order. The minutes of the previous meeting were read and approved. The applications of Thos. E. Gibson and Philip R. Johnson of Mt. Pleasant and Bernard J. Graham of Alma for membership in this Society were read, they having previously been referred to the Board of Censors, and each was recommended by them for membership. Each name was voted on separately. All were declared members of this Society.

Doctor Hobbs then called on Dr. B. J. Graham to introduce his friend, Dr. George Curry of Flint, who talked and showed slides of injuries in and around the knee joint. The Doctor's pictures of different fractures and injuries to the knee were very good. His explanations and description of the methods of caring for these injuries were easily understood and very instructive.

Doctor Hobbs introduced Mr. M. M. Ricketts of the Petrolagar Laboratories, who showed two moving-talking pictures of operations of repair of the parturient canal.

The meeting adjourned.

E. M. Highfield, M.D., *Secretary.*

GRAND TRAVERSE-LEELANAU COUNTY

The Grand Traverse-Leelanau County Medical Society held ten meetings during the year of 1932. During the year the Society gained two members, bringing our membership roll to twenty-eight. The average attendance per meeting was sixteen.

The program committee, headed by Dr. E. B. Minor of Traverse City, has been very active and succeeded in making each meeting interesting. Of course this committee encountered the usual difficulty in trying to get our local members to work hard enough to present a paper. Case history discussion with all members participating, appears to

be the most acceptable and stimulating program for regular meetings.

The outstanding meetings of the year were the January 5th, during which Mr. Moore of the General Electric Company demonstrated artificial fever therapy, Dr. Meness of Grand Rapids showed a series of X-Ray films on gastro-intestinal lesions, and Dr. Merrill Wells of Grand Rapids talked on the "Etiology and Treatment of Peptic Ulcer"; the August picnic meeting at Dr. Kyselka's Long Lake cottage at which Dr. Louis J. Hirschman of Detroit gave an outdoor lantern slide talk on "Carcinoma of the Rectum and the Selection of the Umbilicus as a Site for Colostomy," and Dr. Isaac A. Abt of Chicago held a round table discussion on some phases of Pediatric Practice.

At our annual meeting, December 6, 1932, when the members were the guests of our retiring president, Dr. G. A. Holliday, as guest of honor, Dr. George L. LeFevre, President-Elect of the Michigan State Medical Society, gave a very comprehensive talk on "Medical Economics" from the standpoint of the county society, referring particularly to indigent care. He also stressed the great increase in malpractice suits and the necessity of each member protecting his fellow practitioner.

The following officers were elected for 1933: President, Dr. T. W. Thompson; vice president, Dr. M. J. Holdsworth; medico-legal advisor, Dr. F. G. Swartz; secretary-treasurer, Dr. E. F. Sladek.

E. F. Sladek, *Secretary.*

INGHAM COUNTY

The regular monthly meeting of the Medical Society of Ingham County was held December 20th at the Episcopal Guild Hall in Lansing. Dinner was served at 6:30 and 70 members and guests were present. Guests included Drs. Hargrave, Sheets, Stimson and Bradley of Eaton Rapids; Dr. McCoy of Grand Lodge; Dr. Hart of St. Johns; and Drs. Farnham and Ekelund of Pontiac.

Following a few remarks from President Wm. E. McNamara, the regular business meeting was called to order. Minutes of the last meeting, as published in the Bulletin, were approved.

Dr. T. I. Bauer gave a treasurer's report. It was moved by Dr. Bauer, seconded by Dr. Shaw, that the treasurer be instructed to write a check for the 1933 dues of all members in good standing at this time. Motion carried. Dr. Bauer then presented a check to Dr. F. C. Warnshuis, secretary of the Michigan State Medical Society, for the dues for 1933 of all members in good standing.

The application of Dr. John H. Albers of East Lansing for Associate membership was presented. It was moved by Dr. McIntyre, seconded by Dr. De Vries, that the application be accepted. Motion carried.

Dr. John Wetzel then gave a very detailed summary of the Majority Report on the Cost of Medical Care. This was followed by a summary of the Minority Committee Report by Dr. L. G. Christian.

Dr. F. C. Warnshuis of Grand Rapids, Secretary of the Michigan State Medical Society, gave the principal address of the evening, speaking on "Organizational Activities." Dr. Warnshuis stated that whether medical organization in Michigan will continue to meet its responsibilities and duplicate its success of the past in safeguarding scientific medicine, preserving the present standards of medical practice, and promoting the best interests of the individual physician depends on the other factors in successful organization, namely—

1. The active, united and enthusiastic interest of every member in the activities and program of medical organization, and:
2. The enlistment of every eligible physician in the cause of organized medicine. We must deal collectively with the exploitation of medicine. The safety of the public in matters of life and health rests upon the initiative of our profession. The preservation of all that is best in the tradition of our profession, of all that has been produced in the development of the science of medicine can be accomplished only in a closed union of our individual interests.

   It must not be forgotten that medical organization has been, and will continue to be, the most powerful influence in the protection and maintenance of the personal interests of the individual physician. The fact should not be lost sight of that medical organization has consistently demanded that the economic security of the individual practitioner be insured along with the welfare of the public at large in any new form of medical practice which may be evolved. Medical organization has not overlooked the fact that the personal, human element in medicine predominates.

   After all, medical practice is secondary to, and dependent upon, the progress of the medical profession. Solution of the problems of the profession is the means to an end. Let the profession fail and medical practice fails also. Medical practice does not stand alone and for that reason cannot endure unmolested without the protection of the medical profession. Medical practice is merely a child of the medical profession and without proper organization becomes an orphan.

   Through the maintnance of strong medical organization, the medical profession will have reasonable assurance that its economic security will be protected and safeguarded, and therefore that it will be permitted to keep pace with the advancement of scientific medicine. Under such conditions, sound medical practice can be carried on and competent medical care provided.

   Much depends on how the medical profession acts to meet the present crisis. Only by united action can it hope to weather the storm and preserve those proven principles which it knows to be best for the public and for its own members.

The machinery has been created and is operated efficiently and is intact. Leadership of the highest type is provided. Expression of effort alone, on the part of every member, limits, or enhances our end-results. You as an individual member are the important factor. Without your united support the efforts of your officers, your Council and your committees are limited. The need of the day is an awakened, aggressive, sustaining membership.

Dr. Warnshuis, in discussing the report on the Cost of Medical Care, stated that it was his impression, as well as that of the country at large, that this report is the essence of folly. There is no panacea that can be advanced to solve the problems of the medical profession, as problems in one community differ from those in other communities. The real answer, in his opinion, is the awakening of each individual physician in each county society. He recommended that this medical society pass resolutions endorsing the Minority Report, sending it to Dr. Olin West of Chicago.

Dr. McCrumb, in the absence of Dr. Arnold Strauss, read his paper on "State Sick Insurance in Germany." The history of State Sick Insurance in

Germany dates back to the time of Bismarck in 1878. Changes were made following the World War so that now it is purely State Medicine, organized for and by the Socialistic Party. 95% of the population are now covered by this insurance. The advantages to the public are larger scale medical attention for many who would otherwise receive none, the direct result of which is the prevention of many infections, a low infant mortality, a fair degree of preventive medicine and some eugenic measures. The disadvantages are the extremely high costs, as every workman is compelled to pay 10% of his wages for this sick insurance. A more insidious fault is the destruction of individual initiative, for once they become ill they do not care to become well as they are being paid to be sick.

The physician received ten cents for an office call and less than thirty cents for a house call. One physician cares for about 600 members of the Socialistic party, or approximately 2,000 people. Because of this, only about one-half of the doctors are earning the minimum of money, even though the income of the medical profession was reduced to approximately nothing after the War. Some doctors who are fortunate to be located in poor districts where every member has from four to six children, have about 4,000 clients, which means seeing about 100 patients a day. A doctor who is so fortunate is called an "Insurance Lion"; he need not worry about his pay, and his patients cannot change to another physician. At the present time only about 3% of all physicians are so happily situated. There are now about 5,000 physicians admitted by the Insurance Companies, and all must remain on the waiting list for a period of three years. Those applying next year must wait five years, and those who apply in 1934 will wait ten years.

The insurance companies have suggested that the way out of this tangle is by employing all physicians who so desire, and allowing them to compete among themselves. This they can easily afford to do since only about 20% of the money they receive is turned over to the doctors. The leading physicians in this field all realize that the entire insurance system is on the verge of a complete collapse. It is too expensive for a poor country; is demoralizing the masses; and is ruining the doctors and the medical art. In short, it is socialistic, and not social.

The best way out seems to be in transferring the insurance companies into private hands, probably trade unions. At any rate they must be taken away from the State. The new Government, which is not socialistic, is realizing these trends and is striving to obtain work for everyone, and restrict the avalanche of medical students.

We American physicians should be very slow and extremely careful in accepting a program of State Medicine.

Drs. Ekelund and Farnham of Pontiac spoke briefly. Dr. Farnham suggested, inasmuch as we do not have facilities to keep committees active and our interests adequately preserved, that several County societies, geographically located, hire a paid secretary to hold the societies more intact and keep better informed, etc.

The discussion was continued by Dr. Milton Shaw. It was moved by Dr. Breakey, seconded by Dr. McIntyre, that a committee be appointed to draw up resolutions endorsing the Minority Committee Report on the Cost of Medical Care, to be sent to Dr. Olin West of Chicago. Motion carried.

Dr. F. C. Warnshuis closed the discussion. In doing so, he stated that physical and mental health were the most fundamental of all factors for the welfare of the public; and that the medical practice of the future is the care of the middle and old age —of the degenerative diseases.

The meeting adjourned.

Russell L. Finch,
Secretary.

JACKSON COUNTY

The business meeting of the Jackson County Medical Society was held Tuesday afternoon, December 20, 1932, at Foote Hospital. The proposed amendment to the Constitution to eliminate the office of vice president and substitute the office of president-elect was carried after some discussion.

It was moved by Dr. Alter and seconded by Dr. Riley that the president-elect be nominated and elected by ballot and that his duties be defined as follows: The president-elect shall assist the president in the performance of his duties, shall preside in his absence and upon his death, resignation or removal from the county shall succeed to the presidency. He shall also attend the Board of Directors meetings and committee meetings, familiarizing himself with the problems confronting the Society. The motion carried.

Officers for 1933 were then elected as follows: Dr. W. L. Finton, president; Dr. Clyde Leonard, president-elect; Dr. R. H. Alter, secretary; Dr. F. G. Ransom, treasurer; Drs. DeMay, Cox, and Smith, directors; Drs. Riley and O'Meara, delegates; Drs. Clarke and Brown, alternate delegates.

A general discussion followed concerning the work of the Secretary. It was pointed out that the work of this office had greatly increased during the last few years. It was the consensus of opinion that the work done by the Secretary should be divided among other members, some believing the Secretary should receive compensation for his services. Doctor Smith moved that the incoming officers take some steps to lessen the work now falling on the secretary. Motion carried.

The evening program was held at the Hayes Hotel, with a dinner dance. Following the dinner Santa Claus put in his appearance and distributed gifts to the ladies present. The Committee in charge was composed of Dr. Newton, Chairman, assisted by Drs. Schaeffer and Meads.

R. H. Alter, *Secretary.*

KALAMAZOO COUNTY

The forty-ninth annual meeting was held in the Academy rooms on the afternoon of December 20, 1932, being called to order by the President, R. A. Morter.

The minutes of the preceding meeting were approved.

Drs. Jackson and L. H. Stewart moved that the Treasurer's report as printed in the Bulletin be accepted. Motion carried.

Dr. Bennett reporting for the Public Relations Committee reported that a survey of the county had been made as to the number of clinics, etc., at the request of the State Committee for the study of medical economics in Michigan. The questionnaire that had been sent to the physicians, however, received poor response and a plea was made for more active interest in public affairs so as to be able to cope with problems that are continually being presented.

Dr. F. T. Andrews, reporting as a delegate to the State Society, reported on the paucity of accomplishments of the House of Delegates at the recent convention but emphasized the success of the State Meeting and voiced his thanks for the coöperation of the members.

Dr. Boys announced that the Civic Improvement

League desires to innaugurate a pre-natal clinic and the city welfare department has included in their budget a fee of $7.50 for the acconcheur on the case. He moved that three be appointed to confer with him and Dr. Lavan about the advisability, or not, of starting this clinic. No second. The matter was referred to the Committee on Public Relations.

Dr. Morter thanked the Program Committee of the past year for their prompt and efficient manner in arranging for programs.

Drs. F. T. Andrew and Aach moved that the report of the last executive committee meeting be accepted. Motion carried.

Drs. Wilbur and L. H. Stewart moved the adoption of the amendment to Chapter I, Section 3, of the By-Laws requiring an applicant to be in residence in the community for one year before acceptance as a member. Motion carried.

Drs. C. A. Alexander and James G. Malone were unanimously elected to membership.

Resolutions on the death of Dr. W. E. Upjohn were read by Dr. Caldwell and he and Dr. F. T. Andrews moved that they be spread on the minutes of the Academy and that a copy be sent to the family. Motion carried.

Balloting for election for President for the ensuing year resulted in the unanimous election of Dr. W. R. Vaughan.

Drs. Crum and den Bleyker moved that the Committee on Public Relations be made a permanent one and that such be appointed by the President. Motion carried.

Drs. Crum and Bennett moved that the Committees on Social Hygiene and Public Education be discontinued. Motion carried.

Drs. L. H. Stewart and Crum moved that the report of the nominating committee including the officers so listed in this Bulletin be accepted. Motion carried.

The new president, Dr. Vaughan, assumed the chair.

Past President Dr. Morter then delivered his exaugural address.

LUCE COUNTY

The Luce County Medical Society held its November meeting, November 20, 1932, at the home of Dr. H. E. Perry, with Drs. Perry and Swanson as hosts. The ladies were present and everyone enjoyed a venison dinner. All members were present and we had as our guests Major and Mrs. Froitzhoim and Captain W. A. Murphy from Fort Brady, Michigan. Following the dinner the ladies spent the evening playing bridge.

The meeting was called to order by President Gibson and minutes of previous meeting were read and approved. Correspondence was read and discussed. There was no unfinished or new business and no committee reports.

Major Froitzhoim gave a splendid talk on "The Medical Regimen" and clearly outlined the formation and function of the unit. The Major's talk was greatly enjoyed and freely discussed by all present.

The meeting adjourned.

The Luce County Medical Society held its December meeting at the home of Dr. George F. Swanson on December 20, 1932, at 8:30 P. M. with all members present.

The meeting was called to order by President Gibson and minutes of previous meeting were read and approved. Correspondence was read and discussed. The following officers were elected: President, C. B. Toms; Vice-President, R. E. Spinks; Secretary-Treasurer, George F. Swanson; Delegate to State Convention, H. E. Perry with E. H. Campbell as alternate; Program committee, C. B. Toms and George F. Swanson.

Through the courtesy of Davis & Geck, Inc., four films on Ventral Hernia and Salpingo-Oophorectomy were shown. These films were very instructive and greatly enjoyed by all the members.

The meeting adjourned.

George F. Swanson, *Secretary.*

MANISTEE COUNTY

At the annual meeting of the Manistee County Medical Society held December 15, 1932, the following officers were elected:

President, Dr. Ellery A. Oakes; vice president, Dr. Charles L. Grant; secretary-treasurer, Dr. Ernest C. Hansen; delegate, Dr. A. A. McKay; alternate, Dr. Stephen Fairbank.

E. C. Hansen, *Secretary.*

MARQUETTE-ALGER COUNTY

The December meeting of the Marquette-Alger County Medical Society was held at Marquette, Michigan, December 12, 1932.

The committee appointed to confer with the County Poor Board advised that an agreement had been made whereby the regular fee of $50.00 for major surgical cases in County patients would be reduced 20%. Furthermore that they refuse to make additional payment in cases in which long postoperative treatment is required and that they refuse to take any action upon maternity cases at this time.

A very instructive paper on the Tannic Acid Treatment of Burns was presented by Dr. Lloyd E. Hamlin of Norway, Michigan.

D. P. Hornbogen, *Secretary.*

MECOSTA COUNTY

The regular meeting of the Mecosta County Medical Society was held at the Western Hotel Tuesday evening, January 10, 1933. Hosts, Drs. MacIntyre and Peck.

Present: Drs. Campbell, Grieve, MacIntyre, Chess, Peck, Bunce, Yeo and Burkart; Dentists, Pryor, Miller, Shank and Rogers.

Dinner was served at 7:00 p. m.

The meeting was called to order by President Campbell at 7:45 p. m. No communications. Meeting turned over to Dr. G. H. Yeo, Chairman of the Program Committee, who reported that due to the illness of Dr. Vis, the expected speaker, a round-table talk would be indulged in, and all members present recited interesting experiences in the early years of their practice.

President Campbell announced the appointment of following committees:

Program—Drs. Chess, Yeo; Dentist Rogers.

Industrial Activities—Drs. Peck, Bunce, Kelsey.

Public Relations—Drs. Kelsey, Bruggema, Grieve, Franklin, Peck.

President Campbell suggested that the Program Committee arrange the program two months in advance.

On motion, a rising vote of thanks was given our hosts, Drs. MacIntyre and Peck.

Jno. L. Burkart, *Secretary-Treasurer.*

MUSKEGON COUNTY

The annual meeting of the Muskegon County Society was held Friday, December 16. New officers for the coming year are: President, Dr. R. J. Douglas; vice president, Dr. V. S. Laurin; secretary-treasurer, Dr. M. E. Stone; delegate to State Convention, Dr. F. W. Garber, Sr.; alternate delegate,

Dr. C. J. Bloom; medico-legal advisor, Dr. Geo. L. Le Fevre.

M. E. STONE, *Secretary.*

NORTHERN MICHIGAN

The December meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, Tuesday, December 20, 1932. There were twenty members present at dinner.

The meeting was called to order by the president. The secretary's report was read and approved. Correspondence on hand was read and acted upon. Reports of various committees were heard.

Motion was made and carried that our dues for 1933 be $10.00, including both county and state.

Motion was made and carried that the councilor be requested to invite Udo J. Wile to give a clinic in April.

Dr. R. Miller of Harbor Springs was admitted to membership. Dr. Craddock of Mackinaw City made formal application for membership.

Drs. Chapman and McMillan were appointed to the program committee.

Drs. Vanleuven, Brenner and Mayne were appointed to draw up a constitution and set of by-laws.

Election of officers for 1933 then took place. The following officers were elected: President, Gilbert Frank, Harbor Springs; vice president, F. McMillan, Charlevoix; secretary and treasurer, Ervin J. Brenner, East Jordan; delegate, Fred. Mayne, Cheboygan; alternate, Guy Conkle, Boyne City.

The rest of the evening was spent in discussion of the various problems presented by the osteopaths, Couzens Fund, Michigan Tuberculosis Association and allied organizations.

The meeting was then adjourned.

The January, 1933, meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, on Thursday, Jan. 12, 1933, with an attendance of eighteen members and six guests.

Immediately after dinner the meeting was called to order by the new president, who gave a short talk on the aims and ambitions of the Society. The Secretary's report was read and approved. Correspondence from the State Society was read.

Motion was made and seconded that this Society go on record as approving the report of the minority of the Committee on Cost of Medical Care of the American Medical Association.

Drs. Chapman, Mast, and F. McMillan were appointed as a committee to draw up a resolution, to be sent to all state senators and representatives of the immediate vicinity, requesting them to institute legislation in regard to the Crippled Children's Law and the sending of cases to Ann Arbor that could be taken care of here.

Dr. Larson of Levering was appointed to the Program Committee. Dr. Howard of Rogers City then gave a brief talk outlining the activities of the Couzens Fund in Northeastern Michigan. This was followed by a general discussion.

Drs. Moffatt and Quinlan of Charlevoix then talked on the activities in their district. Mr. Neblung and several of the nurses also briefly spoke.

ERVIN J. BRENNER, *Secretary.*

OCEANA COUNTY

Officers of the Oceana County Medical Society elected for 1933 are: A. R. Hayton, Shelby, president; Norman Heysett, Hart, vice president; Fred A. Reetz, Shelby, secretary-treasurer; Norman Heysett, Hart, delegate; Wm. Heard, Pentwater, alternate delegate.

FRED A. REETZ, *Secretary.*

O. M. C. O. R. O.

The regular meeting of the O. M. C. O. R. O. Medical Society was held at Gaylord, December 13, 1932, at 3:30 P. M.

Previous to the business meeting, an enjoyable hour was spent by members of the Medical Society and District Nurses Association in viewing the movie films from Davis & Geck: (1) Relation of Absorbable Sutures to Wound Healing, and (2) Traumatic Surgery of the Extremities. Ten members and fifteen nurses attended.

The following officers were elected for 1933: President, Dr. A. S. McDowell; vice president, Dr. Ruey Ford; secretary and treasurer, Dr. C. G. Clippert. Delegate to State meeting, Dr. C. R. Keyport; alternate delegate, Dr. C. G. Clippert.

Communications were read, discussed and accepted.

Dr. C. R. Keyport was appointed as a committee of one to act as medico-legal advisor.

The meeting adjourned and was followed by a banquet.

C. G. CLIPPERT, *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of Saint Clair County Medical Society was held at Edgewater Inn, Port Huron, Michigan, Tuesday, January 3, 1933. Supper was served to twelve members at 6:15 p. m., and before the program of the evening began, twenty members were present.

The meeting was called to order at 7:35 p. m. with President McColl in the chair. The minutes of the preceding annual meeting were read and approved. Doctor Heavenrich, councillor of the Seventh District, announced that he had deemed it wise to postpone the district meeting announced for February 7, 1933, until some later date because of possible road conditions. President McColl read the suggestion contained in the monthly letter from the State Society with regard to a resolution to endorse the report of the minority of the Committee on the Cost of Medical Care. Doctor Heavenrich moved the adoption of such endorsement, supported by Doctor Derck. The resolution was adopted. President McColl then recommended the Society authorize him to appoint a committee to study the adoption of a new set of By-laws and a new Constitution. A motion by Doctor Waters, supported by Doctor Heavenrich, to this effect, was carried.

President McColl announced two standing committees as follows: State Legislative Committee—A. J. MacKenzie, M.D., Chairman, T. E. DeGurse, M.D., and J. F. Waltz, M.D.; Public Relations Committee, J. A. Attridge, M.D., Chairman, A. L. Callery, M.D., and R. A. Windham, M.D. President McColl then inquired of the Society whether the special committee having the matter of speakers for lay organization meetings in charge should be continued and without any protest he dismissed this committee. The Secretary read several communications. President McColl then called the attention of the Society to the advisability of early payment of dues and stated they must be paid before April 1, 1933.

Doctor Meredith then spoke upon the subject of erythema nodosum, expressing the opinion that this condition was the result of focal infection. The doctor covered the subject in a very thorough manner, outlining symptomatology and treatment. Doctor Battley addressed the Society upon the subject of pyelitis, especially in children. The speaker covered the subject in an interesting manner. Doctor Treadgold spoke upon sinus infection in children and infants and brought out some new thoughts and fine points. Doctor Cooper spoke upon the sub-

ject of industrial surgery and reported three interesting cases.

President McColl stated that there would be no discussion upon the subjects covered by the speakers. He voiced appreciation for the fine talks and thanked the speakers. He also announced the program for the next meeting and requested several members to be prepared upon some subject for the meeting of February 7, 1933. Adjourned.

At the annual meeting of the Society held December 20, 1932, at the Edgewater Inn, Port Huron, Michigan, the following officers and delegates were elected to serve during the year of 1933.

President, D. J. McColl, M.D.; vice president, H. O. Brush, M.D.; secretary-treasurer, George M. Kesl, M.D.; delegate to the State Society, A. L. Callery, M.D.; alternate delegate to the State Society, W. P. Derck, M.D.; trustees: A. J. MacKenzie, M.D., J. A. Attridge, M.D., and E. W. Meredith, M.D.

A regular meeting of the Society was held Tuesday, January 17, 1933, at Edgewater Inn, Port Huron, Michigan. Supper was served about 6:30 p. m. to eighteen members and guests and the meeting called to order by President McColl at 7:50 p. m., with twenty members and four guests in attendance. The minutes of the preceding meeting were read and approved.

Communications were read from Robert B. Kennedy, M.D., of Detroit, in which he accepted the invitation of the Society to be a guest on February 21, 1933, and selected as his subject, "Relief of Pain during Labor and the Treatment of Occiput Posterior"; from Olin West, M.D., of the American Medical Association, thanking the Society for a resolution adopted at our last meeting endorsing the minority report of the Committee on the Costs of Medical Care; from A. B. McGraw, M.D., Secretary of the Lectureship Foundation Committee of the Wayne County Medical Society inviting the members of our Society to attend the Beaumont Lectures to be given January 30 and 31, 1933, at the auditorium of the Wayne County Society in Detroit. The President called the attention of the members present to the last communication and hoped they would attend the lectures if possible.

President McColl announced the following committees: Membership—Chairman, George Waters, M.D., with A. B. Armsbury, M.D., and A. L. Callery, M.D.; Speakers' Committee—J. C. S. Battley, M.D., Chairman, with E. W. Meredith, M.D., and T. H. Cooper, M.D.; Committee for Constitution and By-laws—Chairman, W. P. Derck, M.D., with D. W. Patterson, M.D., and the Secretary.

The President introduced Dr. E. R. Witwer of Detroit, who addressed the Society upon the subject, "The Roentgen Findings in Parathyroidism." The speaker covered the subject from the year 1926 up to the present, giving both clinical and roentgenological signs and symptoms, and then presented a series of case histories with slides, in which he demonstrated the roentgenological findings of the granular disintegration, cystic degeneration and deformity of the skull, humerus, scapula, vertebral column, pelvis, femur and bones of the forearm. In several cases he demonstrated calcium regeneration of affected bones following parathyroidectomy or the removal of tumors from the parathyroid gland. Doctor Witwer presented his subject in a most interesting manner.

The President then introduced Dr. William A. Evans of Detroit, who addressed the Society upon "The Application of Roentgen Rays in the Treatment of Various Types of Malignant Disease." Beginning with records of incidence of malignant disease in Saint Clair County and with his own hospital records of sex and distribution in malignant disease the speaker stated that every physician should be interested in the detection and proper treatment of early malignancy and that if the cases of malignant disease were evenly divided each physician in this county should have at least four or five cases under treatment. As between surgery alone and X-ray alone the speaker stated he believed in a combination of both in many cases, particularly deep seated malignant disease where surgery was at all feasible. He covered a series of cases of skin malignancy with lantern slides demonstrating each case before and after deep hypermassive doses given through openings in lead screens. The results, particularly the cosmetic results, were amazing. He also covered malignant growths in the thorax, showing slides before and after treatment. Doctor Evans' talk was enjoyed very much. Discussion was opened by Doctor E. W. Meredith and followed by Drs. Patterson, John Campbell of Brown City, Heavenrich, MacKenzie, and Smith, after which Drs. Witwer and Evans brought the discussion to a close. A rising vote of thanks was given the guest speakers before adjournment.

GEORGE M. KESL, *Secretary-Treasurer.*

SHIAWASSEE COUNTY

At the annual election of officers of Shiawassee County Medical Society on December 15, 1932, the result was as follows: President, Dr. W. B. Fillinger, Ovid; vice president, Dr. C. M. Wilcox, Owosso; secretary-treasurer, Dr. W. E. Ward, Owosso; delegate, Dr. I. W. Greene; alternate delegate, Dr. A. M. Hume; medico-legal representative, Dr. J. J. Haviland; Board of Directors, Drs. A. L. Arnold, Jr., C. A. Crane and W. F. Weinkauf. Dr. Ward has served this society as secretary-treasurer eighteen consecutive years.

A five-reel movie film entitled "Cancers of the Skin" was shown by Dr. A. L. Arnold, Jr.

The Owosso meeting being held at noon, Dr. Arnold and Dr. Ward took the film to St. Johns and showed it before the Clinton County Medical Society in the evening.

W. E. WARD, *Secretary-Treasurer.*

TUSCOLA COUNTY

The regular monthly medical meeting of the Tuscola Medical Society was held at Caro Community Hospital, January 5, 1933. There was approximately 85 per cent attendance. A lively interest and discussion of the problems of the medical profession of to-day took place.

A resolution was adopted unanimously to accept the Minority report of the Committee on the Costs of Medical Care, and to disapprove of the Majority report of the same committee.

A paper on Public Health and Education was given by Dr. E. C. Swanson of Vassar, which aroused a lively discussion and the appointment of a committee of three, including Drs. E. C. Swanson, N. J. Malloy and L. L. Savage to prepare a program of Public Health in Tuscola County.

I am asked by the Society to obtain the State Society's opinion and advice on the question of the use of the local newspapers as a means of promoting health education. We would appreciate any suggestions along this line.

LLOYD L. SAVAGE, M.D., *Secretary.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The Bay County Auxiliary met at the home of Mrs. G. M. Brown on December 14, with a potluck supper at 6:30 p. m. There were about thirty members present. After the supper, we held our business meeting and election of officers for the coming year. Those elected to office are: President, Mrs. H. Payne Lawrence; first vice president, Mrs. C. M. Swantek; second vice president, Mrs. Roy C. Perkins; recording secretary, Mrs. A. L. Ziliak; corresponding secretary, Mrs. A. D. Allen; treasurer, Mrs. H. M. Gale.

We have decided to meet every month this year instead of every other month.

At our meeting in January, we will have a committee from the Medical Society, as they wish to have us take up some particular work, and this will be explained at that time.

After the business meeting, we did some hand work for the Civic League.

We are looking forward to a busy year, for there is much to be done and we must all bend our efforts to the good work.

Ruth M. Allen, *Corresponding Secretary.*

OAKLAND COUNTY

About thirty members of the Oakland County Medical Auxiliary met for a coöperative luncheon in the Casa Del Rey in Pontiac on December 16, 1932.

Dr. C. T. Ekelund talked on "Medical Economy" and Mrs. Robert H. Baker and Mrs. Chauncey Burke gave reports on articles from the medical journals. During the afternoon the members sewed on Red Cross garments.

(Mrs. R. H.) Helen C. Baker, *Publicity Chairman.*

OTTAWA COUNTY

On December 13, 1932, the Woman's Auxiliary of the Ottawa County Medical Society met to have luncheon with the doctors at the Presbyterian Church House, Grand Haven. While the doctors adjourned to a special room for their monthly meeting the ladies enjoyed a social afternoon. This auxiliary meets four times a year just for sociability. Mrs. Winters of Holland is the new president.

WAYNE COUNTY

A diversified array of activities were held during the month of December by the Woman's Auxiliary to the Wayne County Medical Society.

On Sunday afternoon, December 11, 1932, a musical program of unusual charm was presented for the pleasure of the Woman's Auxiliary and their friends in the Society's club rooms, when the Steinway grand piano was formally presented to the Wayne County Medical Society through Dr. H. Wellington Yates in behalf of the Woman's Auxiliary. Dr. H. Wellington Yates, President of the Wayne County Medical Society, formally accepted the Steinway grand on behalf of the membership. The Council, the Board of Trustees, and the House Committee, saying: "This splendid gift becomes a permanent memorial to the physicians' wives who are contributing to the success of the Woman's Auxiliary. It becomes a beautiful addition to our home, and as an aid to the expression of culture, will serve as a constant source of enjoyment. This token of your thoughtfulness and generosity should be a stimulus to other woman's auxiliaries throughout the United States.

The artists who contributed entertainment were Mrs. Harriett Story Macfarlane, who gave a musical reading and also sang a group of very beautiful and interesting songs with Mrs. Morris D. Silver at the piano. Mrs. Macfarlane is an artist and singer of national fame. She is one of Detroit's favorite and beloved artists and is equally well known throughout the United States.

Mr. Harry A. McDonald, baritone soloist, rendered a group of delightful songs, with Mr. Carl Rupp at the piano. Mr. McDonald has a rich vocal quality often compared to Lawrence Tibbetts'. Mr. Rupp is the musical director at station CKOK.

The board of directors were hostesses for tea at this affair, during which time Mrs. Claire Straith and Mrs. H. Wellington Yates poured. About one hundred and fifty persons attended this event. Members of the Auxiliary are planning one of these delightful occasions every month. This interesting program was presented through the efforts of that energetic and alert chairman of the program committee, Mrs. Frank Hartman. The next Musical will be held in the Wayne County club rooms on Sunday afternoon, January 29, 1933. The proceeds from these musicals will go towards maintaining the piano fund.

The last monthly meeting, which was held December 13, was a very interesting affair. Dr. Bruce gave a very instructive talk on "Modern Concepts of Medical Practice."

Mrs. Wm. O. Merrill very successfully presented two one-act plays. The first one was the Statue Scene of Pygmalion by Galatea, and she also presented a modern sketch which was a very exciting comedy.

The most attractive party sponsored by the Woman's Auxiliary was the Junior party which was held on Wednesday evening, December 28, 1932, in the Wayne County club rooms. It was a whirl of gaiety. About eighty Juniors were in attendance, which added much distinction to the Wayne County club rooms. A real magician was there who could produce all sorts of mysterious thrills. And there was dancing, ping pong, billiards and other games. The dance hall was very beautifully decorated with balloons. In one of the club rooms was a very large and attractive Christmas tree. The tea table was decorated with a miniature Christmas tree and tall red tapers with Santa Claus and his reindeers and many other things emblematic of Christmas. The grand march was led by Miss Susan Luce, daughter of Dr. and Mrs. Henry Luce. An invitation was extended to all Juniors whose parents were members of the Society. Each Junior was requested to bring a companion. There were card tables set up on the second floor for the chaperons. On the Patrons list were Dr. and Mrs. C. L. Straith and Dr. and Mrs. E. G. Minor.

The Auxiliary begins the New Year with another interesting list of activities. The regular monthly meeting will be held on Tuesday, January 10, 1933, at which time Mr. Ward Culver, Attorney Councillor, will speak on the subject, "Law and Medicins." Miss Edna Penticoff very graciously will render a group of songs. Tea and a social hour will follow, with Mrs. Ira C. Downer and Mrs. L. B. Ashley acting as hostesses.

Another interesting function planned for early in the year is the joint Bridge Tea which the Press Committee and the Legislative are sponsoring to raise funds for the piano fund, welfare fund and the student loan fund. This party will be held on Wednesday, January 11, 1933, in the Wayne Couny club rooms at 2:00 P. M.

The Hygeia Committee are raising funds to place

Hygeia in our libraries and parent teacher associations. They reported that Hygeia is on file in eighteen Detroit schools and in six women's clubs.

The Woman's Auxiliary to the Miamonides Medical Society has contributed $25.00 to the piano fund for the Woman's Auxiliary to the Wayne County Medical Society.

The Welfare Committee took care of fifteen needy families over the holidays. They supplied baskets full of groceries, toys and clothing for these families. The ladies of the Auxiliary meet in the club rooms on the first Tuesday of every month to sew for the needy school children, from 10 A. M. until 3 P. M.

The outstanding social event looked forward to by the Auxiliary is the Donor De Luxe luncheon, which will be held Feb. 1 at the Hotel Statler. Mrs. Perry Burnstine and her committee are very actively interested making preparations for this gala event. Members on all the committees are very busy earning their $5.00 to attend this delightful affair.

The membership committee reported enrolling forty-five new members since the distribution of the Year Book.

Mrs. Leslie T. Henderson,
Publicity Chairman.

COMMUNICATIONS

December 31, 1932.

Dear Dr. Warnshuis:

On Sunday afternoon, January 8, there will come to you over the network of the National Broadcasting Company, through the stations and at the time printed on the back of this letter, the first of a series of important broadcasts under the auspices of E. R. Squibb & Sons.

This campaign is planned primarily with a view to emphasizing the conclusion of a large number of physicians that the general practitioner must be maintained in the central place of medical practice as the best means of meeting the agitation concerning the "costs of medical care."

This view was sponsored by the Commission of Medical Education, which urges that: "Emphasis must be kept constantly upon the fact that only through a sufficient number of properly trained physicians can a community expect to meet its responsibility for the care and prevention of illness, and the protection of health."

Convinced that the family doctor, with recourse to the specialist and to the surgeon, when indicated, is the most efficient and least expensive source of medical care, the house of E. R. Squibb & Sons has taken this means of bringing the indispensable family physician to a greater appreciation by the public.

These broadcasts will also feature great moments in medicine, reflecting dramatically such epoch-making achievements as Beaumont's work on digestion, the first use of ether as a general anesthetic, the famous operation performed by Ephraim McDowell, and other similar outstanding advances. In order to make this educational program more acceptable to the general public, we have added interesting musical feautres, which, we feel confident, will please our vast audience.

We respectfully invite you and every member of your family to listen in on the first broadcast Sunday afternoon, January 8, at the hour and through your station printed on the back of this letter, and to listen in on every succeeding broadcast—always on Sunday afternoons, at the same hour and through the same station.

In conclusion, we would urgently request that you return to us, after you have heard the broadcast, the enclosed postcard, ready for mailing (we pay postage here), with such comment or suggestions as may occur to you, or write us, if you will, at greater length. This will aid us in making this campaign serve in the best possible way the great cause, which we believe you have at heart.

Faithfully yours,
E. R. Squibb & Sons.
John F. Anderson, M.D., Director.

AN ADVERTISER

Indianapolis, Indiana.
December 30, 1932.

Dear Dr. Warnshuis:

In the final analysis, all business is a profession of faith. It begins with the faith of an individual; it establishes faith among those with whom it has commercial relations. It builds up and reciprocates the faith of its employees. It looks ahead continually with faith and confidence in the future.

It is with this thought in mind as we are starting the New Year that we make known to you our appreciation for your good will and coöperation during the trying year just closed and express to you our sincere wish that the year ahead will justify in a large measure the faith that we have and that we hope that you have, and that is so essential to the return of sound business growth and prosperity.

Very truly yours,
Eli Lilly and Company,
John S. Wright, Director,
Advertising Department.

OF GENERAL MEDICAL AND SURGICAL INTEREST

"HEALTH LEVEL" OF SPECIES DETERMINES EVOLUTION RATE

The evolution of a species is determined in considerable measure by what might be termed its general health level. The rate at which it develops new features, like the rate at which the individual grows, is largely a measure of the rate of its metabolism.

This is the theory developed in an article in "Science" by Dr. Carroll Lane Fenton of the University of Buffalo. Dr. Fenton was led to his conclusions by studies on a large series of fossil seashells, caller brachiopods. These, by the simplicity or elaborateness of their markings, indicated at once the evolutionary status and the degree of vigor possessed by the animals that formed them.

In any series of shells, Dr. Fenton found, the animals started out with very simple and austere ideas of exterior decoration. As the millennia rolled by, the markings became more elaborate, reaching a climax indicating full vigor. Then a decline would set in, marked by the development of bizarre decoration schemes and at the same time by the inability of the animals to recover from injury and repair breakages as quickly and completely as their ancestors had been able to in the palmier days of the species. After that, extinction.

Dr. Fenton states that in all his series he has found only indications of a straight-through, determinate course of evolution. There is no indication that the effects were brought about by changes in

environment, and there is no sign of the operation of natural selection considered by Darwin to be necessary in bringing about evolutionary changes.—*Science Service.*

USE OF VEIN LIGATION IN TREATMENT OF ARTERIOSCLEROTIC AND DIABETIC GANGRENE

Herman E. Pearse, Jr., Rochester, N. Y., emphasizes the fact that in obliterative vascular disease of the extremities, operations on the blood vessels are justifiable but are essentially palliative since they do not affect the cause of the original disorder. The effect of venous obstruction in the presence of arterial insufficiency makes it a desirable procedure in appropriate cases. Thirty-one cases in which this operation was performed are collected from the literature and twenty additional ones, followed for a year or more, are reported. Analysis of these fifty-one unselected cases shows that approximately half were benefited, while leg amputation was done in the remainder after a variable period of improvement. A basis for selection of cases is given which creates three groups: (1) those which show a hopelessly damaged circulation, requiring leg amputation; (2) those which result from infection and require only treatment of the local lesion, and (3) those in which there is a fair circulation, with a patent popliteal artery but absent peripheral pulses, and in which conservative treatment including vein ligation should be given. Analysis of the suitable cases shows that in 40 per cent leg amputation was needed within a year, while 60 per cent had a satisfactory result with return of function. Vein ligation should be considered as only a part of the care of these patients. Its use in appropriate cases definitely increases the efficiency of the circulation of the extremity and helps to avoid leg amputation.—*Journal A. M. A.*

HEMOPHILIA

During the last two years Carroll Lafleur Birch, Chicago, has had an opportunity to study thirty-five persons with hemophilia. They range in age from newly born to 52 years. Seven of these cases were sporadic, while twenty-eight had a definite family history. The author has traced the histories of twenty families which consist of from four to seven generations. An analysis of these histories shows that persons with hemophilia have more daughters than sons, while transmitters' have more sons than daughters. Over 71 per cent of the transmitters' sons had hemophilia. Only from 10 to 15 per cent of the transmitters' daughters had at least one normal son and no hemophiliac sons. Of the hemophiliac daughters, only from 3 to 7 per cent had at least one normal son and no hemophiliac sons. Nineteen patients have been receiving ovarian therapy for more than six months. Nine of these showed a good response, and nine showed definite but less marked improvement, while the condition of one remained unchanged. The response was both general and specific. The general improvement was shown by an increase in weight, hemoglobin and vitality. The specific response was shown by a decrease in number and severity of the hemorrhages and a lowering of the coagulation time. The prolongation of the coagulation time in hemophilia is due to increase in the resistance of the blood platelets, for when this resistance is overcome mechanically, the blood clots in normal time. When certain ovarian preparations are added to hemophiliac blood in a test tube, the coagulation time is decreased to one-fourth or one-half the time of the untouched control.—*Journal A. M. A.*

CONTRAINDICATIONS TO CESAREAN SECTION

Willard R. Cooke, Galveston, Texas, believes that it is apparent to the careful student of the problem of cesarean section that a high percentage of the postoperative deaths occur in cases in which contraindications to the operation are present. In other words, the mortality following cesarean section would be greatly reduced if the contraindications were generally recognized and the operation avoided when contraindicated. Careful students of the problem universally recognize as contraindications: (1) the existence of infection, actual or potential, in the genital tract; (2) the lack of a valid indication for the operation, and, almost universally, (3) the convulsive stage of eclampsia. Pain, fatigue, fear or the safety of the child must rarely be considered as excuses for cesarean section. The properly conducted test of labor, analgesia and an adequate allowance of time will eliminate most of the supposedly necessary sections. Even in unskilled hands the procedures alternative to cesarean section carry a total maternal mortality risk from shock, hemorrhage and infection less than that of cesarean section performed in the presence of contraindications.—*Journal A. M. A*

TUMORS OF PELVIC BONES

Clarence B. Francisco, Kansas City, Mo., reports five cases of tumors of the pelvic bones and from his observations he concludes that in cases in which the diagnosis is obscure, in either children or adults, the possibility of a malignant involvement of the bones of the pelvis should be kept in mind. The prognosis of certain well defined tumors of the pelvic bones cannot be predicted with any degree of certainty. Benign tumors of the pelvic bones actually occur relatively infrequently, and every tumor in this region should be looked on with suspicion. Radical resection of a chondroma of the pelvis should be carried out early in an attempt to prevent malignant degeneration in later years.—*Journal A. M. A.*

RELATIONSHIP OF VITAMIN A TO RESPIRATORY INFECTIONS IN INFANTS

L. H. Barenberg and J. M. Lewis, New York, present the results of an investigation to ascertain whether any relationship exists between the Vitamin A content of the diet and the occurrence of respiratory infections. The incidence and severity of these infections were determined in four groups of infants, receiving various quantities of Vitamin A in their diets. The first group comprised nineteen infants receiving partly skimmed milk; the second, ninety-four infants receiving pasteurized milk and 20 drops of viosterol; the third, eighty-five infants receiving pasteurized milk and 3 teaspoonfuls of standardized cod liver oil, and the fourth, six infants receiving pasteurized milk and 6 teaspoonfuls of cod liver oil. All infants were given orange juice at 6 weeks, butter at 6 months and vegetables at 8 months of age. Thus the four diets represented a small, a moderate, a large and a maximum amount of Vitamin A. These infants were observed in an institution, for periods varying from four to twelve months. Respiratory infections were classified as mild, moderate or severe (purulent otitis media, mastoiditis and pneumonia being classed as severe infections). The results may be summed up in a few words: No significant difference in incidence or severity of respiratory infections was noted in the four groups of infants. Thus the group which received the largest daily amount of Vitamin A, through the addition of cod liver oil, was not protected against respiratory infections to a greater degree than the other groups.—*Journal A. M. A.*

THE DOCTORS' LIBRARY

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 16, No. 2. (Chicago Number—September, 1932.) Octavo of 272 pages with 47 illustrations. Per clinic year, July, 1932, to May, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 16, No. 3. (University of California Number, November, 1932.) Octavo of 195 pages with 31 illustrations. Per clinic year, July, 1932, to May, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 12, No. 6. INDEX NUMBER. (Philadelphia Number, December, 1932.) 280 pages with 110 illustrations. Per clinic year, February, 1932, to December, 1932. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1932.

OFFICE SURGERY. Everyday Practice Series. F. Beckman, M.D., 401 pages. 94 illustrations. J. B. Lippincott Co., Philadelphia, 1933. $5.00.

A rather primitive primer of some minor and even major surgical procedures that every senior or interne is informed upon. The book presents nothing new and much that is old, and some that is obsolete. It can occupy space on a desk or in a book case but beyond that it will be of little use to the doctor.

F. C. W.

OUTLINE OF PREVENTIVE MEDICINE FOR MEDICAL PRACTITIONERS AND STUDENTS. Prepared Under the Auspices of The Committee on Public Health Relations, New York Academy of Medicine; 24 Contributors; Editorial Committee—Frederic E. Sondern, Charles Gordon Heyd, and E. H. L. Corwin; Second Edition Revised and Enlarged. Paul B. Hoeber, Inc., New York, 1931. Price $5.00.

This little work fulfills an important place in medical literature. It is not only a book useful to all interested in preventive medicine, but it will appeal to the intelligent lay reader as well. There are twenty-four chapters which for the most part deal with the relation of the various medical and surgical specialties to the idea of preventive medicine. In the preface it is emphasized that prevention of disease follows at least two lines of action, namely the preventing of the contraction of certain diseases and in certain diseases contracted the prevention of the development of serious symptoms. It is likewise important that the layman understand the object of preventive medicine in as much as coöperation on the part of the layman is as important as the aggressive work of the physician.

RADIOLOGIC MAXIMS. Harold Swanberg, B.Sc., M.D., F.A.C.P., Editor of The Radiological Review, Quincy, Illinois. With a foreword by Henry Schmitz, A.M., M.D., LL.D., F.A.C.S., Professor of Gynecology and Head of the Department, Loyola University School of Medicine. Cloth. Price, $1.50. Pages 126. Quincy, Illinois: Radiological Review Publishing Company, 1932.

This little work is made up of short sentences, some of them epigrammatic, and paragraphs relating to the various fields, diagnostic and therapeutic of radiology. The author has arranged them into an orderly classification as indicated in the table of contents. He justifies the idea of the book by quotations from Horace, "Whatever you teach be brief, for minds grasp with readiness what is said shortly and retain it firmly." And Sophocles, "Many wise things are bound up in short speech." The little work is deserving of a place in the medical library of every physician.

THE REAL MEANING OF SOCIAL INSURANCE, ITS PRESENT STATUS AND TENDENCIES. By Hugh H. Wolfenden, Fellow of the Institute of Actuaries, Great Britain; Fellow of the Actuarial Society of America; Fellow of the Royal Statistical Society. Toronto: The Macmillan Company of Canada, Limited, at St. Martin's House. 1932. Price $2.00.

While from the title a work like this might seem foreign to medicine we know of no subject that concerns physicians more than this. Social insurance may mean the salvation of the medical profession financially or it may mean the elimination of large numbers of them and the placing of the remainder under lay management and direction. This book has been strongly recommended by Dr. W. H. Marshall of Flint, who is at present concerned in the social survey being carried out under the authority of the Michigan State Medical Society. The author of the work is introduced to us an independent actuary of high attainment who is eminently qualified to make an impartial study of social insurance. The little work consists of thirteen chapters, the early chapters of which make up the history of the idea of insurance. Then we have a chapter on The Causes and Extent of Dependency and Poverty. Chapter VI deals with The Financing and Cost of State Plans. Chapter VII The Problem of Medical Care. Chapter VIII The Special Problems of Unemployment. In chapters X and XI the author discusses the pros and contras of state insurance. The 227 pages comprising this work will be found of inestimable value to everyone in the active practice of medicine in as much as a perusal of them will give him an intelligent viewpoint on what is a very vital subject for the American medical profession.

STREPTOCOCCIC MENINGITIS WITH INTRACAROTID TREATMENT AND RECOVERY

MATTHEW S. ERSNER and THEODORE H. MENDELL, Philadelphia, present two cases of hemolytic streptococcic meningitis of otitic origin in which cure by intracarotid treatment was obtained. Mastoidectomy was performed in both, and blood transfusion, frequent lumbar taps and antistreptococcic serum were used as adjuncts in the treatment. Cerebral dehydration was used to great advantage in both cases. Energetic nasal treatment is essential if a successful outcome is to be attained. Forty-six cases of streptococcic meningitis with recovery are listed in the literature prior to this report. Whenever meningitis complicates an otologic condition, intracarotid therapy after the method of Kolmer is advocated early without delay, along with other treatment, as a simple harmless measure offering some hope in the treatment of an almost hopeless disease.—*Journal A. M. A.*

ABNORMAL UTERINE BLEEDING IN BLOOD DYSCRASIAS

MILTON E. KAHN, Buffalo, reports four cases in which abnormal uterine bleeding was the first and most prominent symptom of a blood dyscrasia. Abnormal uterine bleeding is sometimes the primary and most important symptom of an underlying blood dyscrasia. Menstrual abnormality has been observed in practically all the blood dyscrasias, including secondary anemia. Thrombocytopenic purpura, above the other dyscrasias, seems most commonly accompanied by excessive, prolonged and irregular uterine bleeding. Careful and complete blood study is often of diagnostic importance in cases of disturbed menstruation for which no obvious pelvic lesion is responsible.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII MARCH, 1933 No. 3

CONTENTS

Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. I. Thirst and Hunger. Dr. W. B. Cannon 155

The Relation Between Cerebral Diplegia and Birth Injury. T. D. Gordon, M.D. 165

Report of a Case of Bronchial Asthma Due to Moulds. Barney A. Credille, M.D. 167

The Treatment of Malignant and Premalignant Dermatoses. Clyde K. Hasley, M.D. 168

The Thyrogenic Heart. John L. Chester, M.D. 171

Trend of Clinic Service in Detroit. David J. Sandweiss, M.D. 177

Intestinal Obstruction Due to Impacted Gall Stone. Joseph Johns, M.D. 180

Some Notes on Sickness Insurance in Germany, 1932. William A. Evans, Jr., M.D. 181

Medical Participation—The Answer. L. O. Geib, M.D. 183

Michigan Department of Health. C. C. Slemons, M.D., Dr.P.H. 186

Editorial:

Post Graduate Opportunities 189

The Fistulous Alexis 189

X-ray and the Depression 191

What is Socialism? 192

"Died Following Operation" 193

Digitalis and Heart Disease 194

Obituary 196

Communications 196

Medical Economics:

The Battle Creek Plan for Medical Care of the Indigent. The Academy of Medicine and Dentistry 196

Society Activity 198

County Societies 204

Woman's Auxiliary 206

General News and Announcements 208

The Doctor's Library 209

SOME MODERN EXTENSIONS OF BEAUMONT'S STUDIES ON ALEXIS ST. MARTIN*

I. THIRST AND HUNGER

DR. W. B. CANNON

George Higginson Professor of Physiology, Harvard Medical School

BOSTON, MASSACHUSETTS

In 1929 the thirteenth International Congress of Physiology was held in Boston. The hosts on that occasion were the members of the Federation of American Societies for Experimental Biology, including physiologists, biochemists, pharmacologists and experimental pathologists; and the members of the Congress who came from abroad included eminent investigators from many countries in all parts of the world. When a Congress meets in any country it is customary for the members from that country to select one of their countrymen, who has been an outstanding contributor to the physiological aspects of science, to be commemorated in a medal. In anticipation of the Boston meeting various non-living Americans who had contributed to physiology were considered for that honor. After discussing all the men who were proposed, the Committee having the matter in charge finally selected Dr. William

*This is the first of the series of Beaumont lectures delivered before the Wayne County Medical Society, January 30, 1933. See editorial page 189.

Beaumont, who, in Osler's phrase, was "the pioneer American physiologist." This selection met universal approval. The reason for unanimity of the choice was, I believe, a basic feeling that Dr. Beaumont singularly typified American character. By the accident which opened the stomach of Alexis St. Martin, Beaumont was presented with an unusual opportunity to study the processes of gastric digestion. To be sure, such accidents had occurred in the past but no one had seized the chance thus offered to carry on systematic studies. In Beaumont's case, however, the occasion and the investigator met, and the occasion was seized with intelligence and utilized with the utmost interest and persistence. Working in a backwoods army post, under the most unfavorable conditions, without laboratory aids, with no journals or other literature to consult, with no associates to encourage him and to help him create an atmosphere for research, Beaumont for long periods conducted careful studies on his patient. They exemplified admirable independence and resourcefulness. He recorded his observations in the common language, transparent in its devotion to telling the truth as he saw it. Again and again he had to persuade and cajole the "fistulous Alexis" in order to be able to continue the investigations. Just one hundred years ago, in 1833, he published his classical book entitled, "Experiments and Observations on the Gastric Juice and the Physiology of Digestion." That was not, however, the end of his efforts. Twenty years later, in 1853, he tried again, after many futile attempts, to obtain the cooperation of St. Martin. In October of that year, he wrote to his cousin with characteristic modesty, "I must retrieve my past ignorance, imbecility and professional remissness of a quarter of a century, or more, by double diligence, intense study and untiring application of soul and body to the subject before I die." It was the seizing of the rare chance, the independence of judgment, the ready use of simple methods, the persistent and scrupulous care evident in the studies which Alexis St. Martin made possible, the repeated conquest of difficulties in spite of discouragements, and the clear and direct reporting of observed facts in a field where Beaumont was a pioneer, that made him the investigator whom American physiologists admired and whom they with pride memorialized in a medal.

The selection of Beaumont as a typical American investigator was one which foreign guests at the International Congress could appreciate. Beaumont's studies were known throughout the world. The method which he by chance made use of was, within a few years after his book appeared, applied in studies of lower animals by the great French physiologist, Claude Bernard, and later by many others. Much later the method was used also by the renowned Russian physiologist, Pavlov, in his classical studies of the digestive process, for which, in 1904, he received the Nobel Prize. The backwoods physiologist of one hundred years ago thus received high honor, much greater honor than he could ever have anticipated, from physiological investigators at one of their great triennial meetings.

When I was asked to give the Beaumont Lectures before the Wayne County Medical Society on this 100th anniversary of the publication of Beaumont's classic, I welcomed the invitation with pleasure and interest. The reasons for that satisfaction are two. It happens that my own life and my early interests in research were in a rather special way related to the life and labors of Dr. Beaumont himself. For about two years he was stationed at Fort Crawford, an outpost set up against the Indians at Prairie du Chien, Wisconsin—then in Michigan Territory. Some of his most important studies on St. Martin were carried on there during the years 1829-31. About forty years later my father and mother were residents of Prairie du Chien, and it happened that I was then born in that small settlement where Beaumont had pursued his researches on gastric digestion. Years afterwards I, too, undertook an investigation of digestive functions. In 1896, when I was a first-year medical student, Dr. Henry P. Bowditch, Professor of Physiology at the Harvard Medical School, suggested that we use the newly developed X-rays to study the phenomena of swallowing. I accepted the suggestion, and in the autumn of that year began observations on the movement of food through the esophagus as revealed by the then very mysterious and miraculous rays. During the holiday week the last of December, 1896, we demonstrated the movement of material through the neck of a goose. The bird was shut tightly in a box through the top of which the neck protruded. A high cardboard col-

lar fixed above the box to hold the neck straight gave the goose a most absurd and pompous air. Such were the beginnings of the use of X-rays in tracing the processes of digestion. Soon we were making use of subnitrate of bismuth as an opaque powder mixed with the food to cause it to cast a shadow on a fluorescent screen. The food that was swallowed by dogs and cats, whose movements of deglutition were being examined, gathered in their stomachs. This accumulation naturally aroused interest in what could be seen of gastric peristalsis and the emptying of the stomach into the intestine. The passage of food into the intestine led to scrutiny of the processes taking place there. Thus, step by step, the progress of food through the alimentary tract was followed. Subsequently, observations were made on the rate of passage of different food stuffs through different parts of the tract, the effects of the temperature of the food on its treatment, the relation of an acid or an alkaline reaction to its discharge from the stomach, the influence of dilution, and many other conditions which need not now be mentioned. Suffice it to say that the new method has given the opportunity, as Haggard has remarked, for every physician to be a William Beaumont and his patient an Alexis St. Martin, because now it is possible by means of the roentgen rays, as everyone is aware, to examine readily in man the activities of the gastric wall, the changing contour as disease may influence it, and the effects on digestion of many factors that were first observed in lower animals.

The work on the physiology of the gastro-intestinal tract which I had the privilege of beginning thirty-six years ago was summarized in a book published about twenty-one years ago under the title, "The Mechanical Factors of Digestion." Since that time I have not been engaged directly in researches on alimentary functions. Other interests, however, that have occupied my attention during the past twenty-one years, have been the outgrowth of the earlier studies, and they have significant bearings on the activities of the digestive organs. It has seemed to me, therefore, quite in consonance with the spirit of this occasion to consider some of these more recent interests in relation to the observations which Beaumont recorded. Among these later interests are those concerned with the nature of thirst and of hunger, the influence of general bodily conditions on digestion, and the effects of emotional excitement in the organism.

Although the record which Beaumont left us is in the main a direct descriptive account of observations which he made on St. Martin, he occasionally summarized his experience and drew conclusions therefrom. Furthermore, he expressed certain opinions regarding the nature of processes which he could not fully determine by observational methods. Among the opinions were those included in a brief chapter entitled "Of Hunger and Thirst." I propose that we examine today Beaumont's views on these subjects and some of the more recent developments which modify those views.

First let us take up thirst. In a brief consideration of thirst Beaumont quotes Magendie, then probably the foremost physiologist in the world, as saying, "Thirst is an internal sensation, an instinctive sentiment"; "the result of organization and does not admit of any explanation." With characteristic independence Beaumont utterly rejected the limitation which Magendie had laid down. He said, "Thirst is no more an 'instinctive sentiment' than any other sensation of the economy; to say that it is the 'result of organization' gives no explanation, amounts to nothing, and is certainly, to say the least, a very unsatisfactory way of disposing of the question." Beaumont declared that thirst is a sensation arising from the mouth and fauces, a feeling of dryness due to evaporation of moisture from the surfaces of those regions because the passage of the respired air took up the moisture at a rate faster than it could be supplied.

He further suggested that the failure of a secretion adequate for keeping the surfaces of the pharynx moist was due to a viscid state of the blood resulting from an inadequate water supply. Modern research has not supported this explanation of the nature of thirst, for careful studies of the blood have shown that even after several days of lack of water the physical state of the blood is altered to only a minor degree.

Although the theory of thirst as a general sensation was supported by as great a physiologist as Claude Bernard, recent evidence, I think, definitely confirms Beaumont's view that it has a local source in the mouth and pharynx. The main fea-

tures of this evidence are as follows: Persons suffering from severe thirst because of great losses of water through the kidneys, as in diabetes insipidus, are relieved when the sensitiveness of the nerve endings at the back of the mouth is destroyed by painting the region with cocaine. Moreover, sipping a small amount of water and temporarily moving it about in the mouth will stop the sensation. Also, holding in the mouth a substance which causes a secretion of saliva —a bit of lemon, for instance—will lessen thirst. Not one of these procedures supplies water to the body and yet the distress is mitigated. Since the thickening of the blood cannot explain the local dryness, as Beaumont suggested, some other explanation must be sought which, when the body requires water, would cause the mouth to become dry. This arrangement might reasonably be found only in animals which are continuously and repeatedly losing water, and which, therefore, must have repeated renewal of the water supply in order to maintain a normal condition.

Clues which led to the explanation of thirst were found in comparing the characteristics of water-inhabiting vertebrates with those that are strictly inhabitants of the air. Fish, for example, live in water, and, having a constant stream of water moving through the mouth, they probably never suffer from thirst. The conditions are quite different in the air-inhabiting forms. There is no longer a water current to keep the mouth moist. Instead, there has been added to the structures of the head a nasal chamber through which an air current passes. This current crosses the pharynx to reach the windpipe or trachea. The lining of the nasal chamber and the trachea is well provided with cells which secrete a mucous fluid. On the other hand, the lining of the back of the mouth and the pharynx consists of flattened epithelium having few secreting cells. The air which passes to and fro crosses this ancient water course and therefore tends to dry the region. Prolonged speaking, singing or smoking, which deprives the pharynx of the advantage of previously moistened air, because the air is drawn mainly through the mouth and not through the nose, is especially favorable to drying the mucous membrane at the crossing. The sensation of dryness and stickiness in this area, as Beaumont noted, is recognized as thirst.

Why, then, does not the mucous membrane at the back of the mouth always feel dry and sticky? And why does it feel so, particularly, when the body is in need of water? Again, comparison of water-inhabiting animals with air-inhabiting animals offers a suggestive clue. The vertebrates which live in water do not possess buccal glands, whereas those which live in air have such glands, and they are newly developed features associated with the new type of environment. In the higher air-inhabiting forms the buccal glands have become evolved into the well-known salivary glands. Note especially the significant fact that the saliva which they produce has a water content varying between 97 and 99 per cent. Normally saliva assures a moist lining of the buccal cavity. The theory which these glands suggested was that when water is needed in the body the salivary glands are unfavorably affected by the deficient general water supply. If they do not have water to utilize for secretion they are unable to perform their function of keeping the mouth and pharynx moist. This region, therefore, becomes dry, and thus the sensation of thirst arises. This theory, which I put forth about fifteen years ago, has now a considerable body of evidence to support it. In the main the evidence is derived from observations on a lessened salivary flow and the appearance of thirst when the water content of the body is reduced, or on the appearance of thirst if the mouth becomes dry, even though the body is not dehydrated. Let us consider briefly these observations.

In one of the first experiments I found that chewing of a tasteless gum for five minutes would result repeatedly in a fairly uniform amount of saliva. If no water is taken for many hours, however, there is after a time a gradual diminution in the amount of saliva produced in consequence of the standard period of mastication. In my experience, deprivation of water for twenty hours resulted in the reduction of the output of saliva by approximately 50 per cent. This observation has recently been confirmed by Winsor, who recorded the reduction of the salivary output to one-sixth its normal amount seventy hours after his last drink. My colleague, Dr. Gregersen, has likewise confirmed the observation. A few minutes after a drink of water the salivary output was restored in all cases nearly to normal. Associated with the

diminished secretion of saliva there was a definite sensation of thirst—a sensation which disappeared as soon as the supply of saliva was restored. This coincident association of bodily need for water, diminished flow of saliva, and the sensation of thirst, strongly supports the view that the deficient functioning of the salivary glands signals the bodily need by causing the unpleasant sensation.

Again, it was found that the output of saliva can be greatly reduced by abundant sweating. When conditions are established to produce that effect, the standard mastication results in a greatly reduced output of saliva. This is associated with a noteworthy dryness of the mouth and an unpleasant thirstiness which can be rapidly abolished by the drinking of water.

Furthermore, the subcutaneous injection of the drug atropine caused, in my experience, a reduction of the salivary output, in consequence of mastication for the standard period, falling to approximately *one-fourteenth* of its former amount. There was, of course, no noteworthy loss of water from the body. Nevertheless, all of the feelings of ordinary thirst were present.

Quite significant is the evidence that there is a well-established reflex secretion of saliva after the mouth becomes slightly dry. One need only breathe through the mouth for about five minutes to demonstrate that first the moving air gradually dries the buccal surface. As the surface becomes dry, saliva is poured out in an amount which may be greater than that obtained by chewing. The presence of this reflex indicates that salivary glands have as one of their special functions the moistening of the mouth.

We are all probably acquainted, from personal experience, with another important fact,—the appearance of thirst as a consequence of fright and the attendant checking of salivary secretion. There are interesting records of persons who, confronted by terrifying situations, have felt intensely the sensation of thirst. Indeed, this fact was used in the old ordeal of rice in which chewing dry rice and later putting it forth from the mouth were required in order to determine the guilty party in a group of suspects. It was assumed that the one who had most reason to be fearful of the result would be less able to muster the saliva necessary to moisten the rice. Under these circumstances, the intense and distressing sensation of thirst is not associated with any real lack of fluid in the body but results from the local condition in the mouth.

In criticism of the theory I am expounding, Montgomery has recently reported that after removal of the salivary glands from dogs the animals, fed moist food, did not take any more water than before the operation. Gregersen and I have shown, however, that such is not the case if the animals are exposed to conditions which tend to dry the buccal mucous membrane. If dogs deprived of the function of their salivary glands are placed in a warm room where they exhibit panting, the water intake may be increased much more than 100 per cent over their normal intake. Under conditions which make the mouth dry, therefore, a deficient salivary flow evidently causes thirst and an increased water intake, even in the absence of actual bodily dehydration.

Within the last few months Gregersen has shown that, when the time of drinking and the amount of water drunk are registered graphically, the water intake of dogs occurs almost solely within the first few hours after feeding, regardless of the time when food is given. If no food is given for twenty-four hours the usual amount that is drunk is reduced to one-fourth the normal or less. Furthermore, if the giving of water is delayed for some time after feeding, the twenty-four hour intake is ordinarily much less than when water is given freely through the period immediately after the feeding. These interesting observations are reasonably explained by the loss of water from the body into the contents of the digestive canal by action of the digestive glands. As Beaumont showed, there is a large secretion of gastric juice into the stomach contents. To this must be added the water which acts as a vehicle for the ferments from the pancreas, also the water in the bile and that in the *succus entericus*. Of course some of this water goes back into the body as food is being absorbed. As the food passes through the alimentary tract, however, it is abundantly mixed with fluid, which renders the passage easy and which serves as a medium in which the chemical changes of digestion can take place. All the water that is contributed to this mixture is as if actualy lost to the organism. In unpublished studies Gregersen has shown that although there is no considerable thickening of the blood, the blood volume is very

much reduced by the water losses which occur because of the digestive secretions. Under these circumstances, again, the salivary glands are deprived of the main constituent of their product and therefore they are unable to keep satisfactorily moist the mucous membranes. Thus is explained the behavior of the dogs in the few hours after eating when they drink abundantly. Thus is explained also their failure to drink if they have not been fed. And thus, also, is explained their failure to drink abundantly if there is sufficient delay in giving them water after a meal, for the digestive juices which have been poured out have then been restored to the body again, and the need for water is no longer present.

Naturally, in our ordinary eating habits we take water with food as we eat. This water is soon absorbed after its passage through the stomach and serves to compensate for the loss of water from the body in the digestive secretions which are poured out as digestion continues after the meal is over. Ordinarily, therefore, we do not experience the postprandial thirst which was manifested by Gregersen's dogs under experimental conditions. Careful observation reveals that usually after a large meal there is a relatively small discharge of water from the body through the kidneys. The reason for that fact becomes clear on the basis of Gregersen's observations,—the body is using water in the digestive process. Only when that process has been completed, and the valuable materials of the food have been absorbed, and the waste has been carried to the colon, is the water restored to the body in amounts which make an excess. Under these circumstances, the organism gets rid of the excess by kidney action.

The evidence which we have just surveyed offers an alternative explanation of the experiments which have been adduced to support the theory that thirst is a general sensation. These experiments in the main consisted of the introduction of water under the skin or into a blood vessel or by way of the intestines (i.e., not through the mouth), and then observing that the sensation of thirst and the desire for taking water disappeared. Obviously, however, just such procedures provide the water supply which allows the salivary glands to operate. The mouth which has become dry because of their failure to operate properly is now moistened again and the sensation of thirst naturally disappears. Its disappearance does not result directly from a satisfaction of a general bodily need but indirectly from the moistening of the mucous membrane of the mouth and pharynx.

We see, therefore, that although Beaumont was right in attributing thirst to a local condition in the mouth and although his bold challenge to the eminent physiologist, Magendie, who had declared that thirst "does not admit of any explanation," was wholly pertinent, we cannot give the same explanation of the phenomenon of thirst which he gave. Instead of assuming an increased viscosity of the blood as a consequence of water lack, we find a reduced blood volume and an attendant reduction of the flow of saliva. That in turn fails to keep moist the mouth and pharynx, and thirst results. Thus the salivary glands act as sentinels to warn against bodily dehydration.

Now let us turn to a consideration of hunger. In the section of his book, "Of Hunger and Thirst," already referred to, Beaumont argued in a very able and self-reliant manner regarding hunger as a sensation. He declared, with reference to the statement that hunger is produced by action of the nervous system and has no other seat than that system, "I cannot perceive that such explanations bring the mind to any satisfactory understanding of the subject. In such a broad proposition it is difficult to ascertain the exact meaning. If the design is to convey the impression that hunger has no 'local habitation'; that it is an impression affecting all the nerves of the system in the same manner, then the sensation would be as likely to be referred to one organ as another." He furthermore argued against certain explanations of the local source of the hunger pang. It was not due to friction of the internal coats of the stomach for three different reasons which he brought out, nor due to irritation of a quantity of gastric juice in the stomach, nor to the "energetic state of the gastric nerves" as had been suggested, nor to the "foresight of the vital principle," which phrase Beaumont declared "means anything, everything or nothing, according to the construction which each one may put upon it." His bold and downright characterization of these views gives relish even as one reads his words today. The explanations, he declared, "are mere sounds and words which convey a tacit

acknowledgment of their author's ignorance."

Beaumont's own view of hunger was that it was "produced by a distension of the gastric vessels, or that apparatus, whether vascular or glandular, which secretes the gastric juice." He reasoned that the sensation must have its source in the stomach itself and that the sensation would vary according to different degrees of supposed distension —the greater the distension the more acute the pang. This argument was based largely on the analogy of pain arising from distension of blood vessels in acute inflammation. He cited in support of the argument that the application of food to the internal coat of the stomach results in an immediate throwing out of a quantity of fluid which mixes with the food. Associated with this discharge of secretion was quiescence and relief from the unpleasant hunger pang. He assumed that during the period when the stomach had no food within it, and when therefore no secretion was occurring, large amounts of the gastric juice must be contained in the appropriate vessels ready to be poured forth.

The feature of hunger which, it seems to me, Beaumont overlooked was its intermittent or recurrent character. Careful observation reveals that hunger occurs in periods; that for a moment it may be present, then it is absent, and then a moment later it is present again. Or, it may work up to a climax of disagreeable feeling, and then may totally disappear, only to recur once more in a gradually developing pang. Such observations on hunger I had made as early as 1905. Interestingly enough the first intimation that hunger is due to contractions of the stomach came during a research on the auscultation of abdominal sounds. The disappearance of the recurrent hunger pangs was commonly associated with a rather loud gurgling noise as heard through the stethoscope. Apparently Beaumont made similar observations. In experiment 65 in his third series, he reports that the introduction of 3.5 drachms of lean, boiled beef through St. Martin's fistula caused an immediate disappearance of the sensation of hunger, and therewith "stopped the borborygmus, or croaking noise, caused by the motion of air in the stomach and intestines peculiar to him since the wound, and almost always observed when the stomach is empty." Beaumont drew the conclusion that this experiment proves that the sense of hunger resides in the stomach. He did not go further, however, and infer that the noise which was heard could only be due to a vibration of air forced by muscular contraction through a narrow orifice.

The time and opportunity for securing evidence as to the cause of the periodic recurrences of the hunger pangs, which I had noted in 1905, did not arise until about 1910. At that time one of my medical students, Arthur Washburn, expressed a desire to carry on investigations in the laboratory, and since he had the unusual ability of regurgitating his gastric contents at will, I proposed to him that we undertake a study of the nature of hunger, and suggested that he become accustomed to having a tube in his esophagus. He took this advice and for days serenely carried on his work in the laboratory with a tube reaching down to his stomach and prevented from going further by a firm grip on its upper end in his clenched teeth. When he had become thoroughly accustomed to this strange condition, we fastened a balloon on the end of the tube and introduced the balloon into the stomach. Then Mr. Washburn, who is now a practicing physician in New York City, would come to the laboratory without breakfast and sit with his back to a recording apparatus ready to press a key whenever he felt hungry. The interesting fact soon developed that quite apart from any contractions of the abdominal wall there were powerful contractions of the stomach which lasted approximately a half-minute and recurred after an inactive interval of about a minute, and that the sensation of hunger was associated with the acme of these contractions. Thus, evidence was adduced that the hunger pangs themselves were due to a cramp-like tightening of the smooth muscle of the gastric wall.

The evidence for associating hunger pangs with gastric contractions was first reported in a lecture before the Harvey Society in New York City in December, 1911. The full report was published in March, 1912. At about that time there appeared in the laboratory of Professor A. J. Carlson, the Chicago physiologist, a real second Alexis St. Martin, a man with a fistula through which it was possible to make studies of the gastric digestive processes quite as Beaumont had done so many years before. This favorable accident made it possible for Carlson to work on the phenomena of hun-

ger in a highly convenient manner. Since at that time I was much interested in the effects of emotions on the body, I turned to that field, and left further investigations of the nature of hunger wholly to Carlson and his students.

In a series of interesting researches on human beings, some of whom, like Washburn, recorded gastric contractions through a tube in the esophagus, and also in studies on various kinds of lower animals, Carlson and his collaborators—prominent among whom is Professor T. L. Patterson of Detroit—not only confirmed the observations which we had made but have brought out many new aspects of the hunger pangs and the relation of gastric contractions to them. For example, we had observed only the separate rhythmic recurrences of the powerful activity of the gastric wall. They were able to prove that in addition the phenomenon of hunger usually begins with occasional weak contractions, that these become gradually more vigorous and appear at shorter intervals until a supreme degree of activity is reached which may culminate in an actual spasm of the smooth muscle. Both the single contraction and the spasm are associated with the typical unpleasant ache, or pang, or gnawing sensation which has long been recognized as the experience of hunger. After the acme of activity has been reached, the stomach usually relaxes and remains inactive for a period, whereupon it starts again with occasional weak contractions, and the cycle of increasing activity followed by quiescence is again repeated. Carlson's second Alexis St. Martin reported that distending the stomach by the balloon or rubbing the mucous lining of the stomach with a smooth object did not cause the sensation of hunger unless these procedures caused contractions. It is definitely the contraction of the gastric muscle, therefore, that brings about the hunger pang.

By simultaneous observations on the pressure changes in the stomach (as recorded from an intragastric balloon during the experience of hunger) and on the gastric contractions (as examined by means of the roentgen rays) Rogers and Martin have found that there are two types of activity in the stomach during the hunger pang. At the height of the pang the lower portion of the stomach may be so strongly contracted that the cavity in that region is completely obliterated. In addition, there may be unusually powerful gastric peristalsis at such a rate that the second wave appears before the first one has gone.

Carlson has studied also with care the conditions which might influence the hunger contractions. For example, sleep does not interfere with them, although they may interfere with sleep and thereby produce restlessness. The contractions are stopped by chewing, and they may be temporarily inhibited by swallowing, a fact which I had noted in 1905. As I shall explain in my third lecture, strong emotional states abolish all digestive activities in the alimentary tract. It is interesting to note that such states likewise abolish the gastric contractions associated with hunger. They are weakened and may be completely checked by smoking; and apparently in this respect the efficacy depends predominantly upon the "strength" of the tobacco. The direct introduction of alcoholic beverages—undiluted beer and wines and 10 per cent alcohol—into the stomach through the gastric fistula causes cessation of the hunger contractions, and also lessening of the tonus of the empty stomach. Very vigorous muscular exercise also inhibits the periodic waves of hunger, but after the inhibition they are likely to occur with greater intensity than before. We have all heard of the advice to tighten the belt, when hunger pangs are intense, in order to abolish them. Tightening of the belt does, indeed, lead to a stoppage of the hunger contractions if they are weak or of moderate strength. The stoppage then may be partial or complete but it lasts only a short time, from 5 to 15 minutes, whereupon they reappear despite continued pressure of the belt.

In almost every audience there are always a few persons who will testify that they have never experienced the pangs of hunger. It is known, furthermore, that although the hunger pangs cease to be disturbing after the first few days of fasting, the hunger contractions still continue. These two facts appear to minimize the importance of hunger contractions as a source of hunger pangs. They are not, however, cogent arguments for the conclusion that the contractions are not the source of the pangs, because many circumstances may prevent stimuli from having their usual effect. A ticking clock, for example, may not produce the sensation of ticking because other stimuli are simultaneously affecting the nervous

system, or because, for instance, the nervous system may be dulled by sleep. That the ticking is not heard at times does not prove that it does not produce the sensation when it is heard. Recently Christensen has reported an inability to find a relation between the presence or strength of gastric contractions and the presence or intensity of hunger sensation. He did indeed find that in conditions of gastric disease typical "hunger pains" were associated with vigorous contractions of the empty or nearly empty stomach. But even under these conditions strong contractions were recorded that were not associated with hunger pangs. This, however, is negative evidence. It seems to me that it can have little force in view of the consideration that other stimuli may influence attention and thereby lessen the influence of the hunger contractions, and in view, also, of the positive testimony of numerous investigators who, since the time when Washburn and I first studied the phenomenon, have found that the pangs of hunger have their immediate source in strong contractions of the gastric musculature.

The interesting problem arises as to what induces the stomach while empty to contract with a much greater vigor than when ordinary peristalsis is coursing over the wall during the digestion of a large meal. The opinion has been expressed that the general bodily need of nutriment affects a part of the brain, that thereupon this serves as a stimulus to arouse gastric contractions, and that these then produce hunger pangs. Carlson has shown, however, that the typical contractions of the empty stomach occur when that organ is completely isolated from the brain and spinal cord, though at somewhat longer intervals than in normal animals. Again, it is known that the elective source of energy for muscular activity is carbohydrate food—glycogen, or sugar. It seemed possible that a deficiency of this energy-yielding material might be signalized by excessive shortening of the smooth muscle of the stomach. Bulatao and Carlson observed that if the sugar concentration of the blood was reduced about 25 per cent by the use of insulin, the hunger contractions became more intense—an observation which had been noted subjectively in human beings who had received an overdose of insulin. That this effect is caused by the lowering of blood sugar and not by insulin was proved by the Belgian investigators, La Barre and Destrée. They followed the gradual drop of the glycemic level after removal of the liver and found that gastric contractions began to appear when the sugar percentage reached about 75 mg. per cent (i.e., about 25 per cent below normal), and that within limits the intensity and frequency increased rapidly as the percentage fell to lower levels. Bulatao and Carlson reported that on injection of sugar into the blood stream the hunger contractions were abolished. Although this evidence is suggestive, it cannot be regarded as definite proof that the hunger contractions are due to lack of circulating sugar, for the sugar used to abolish the contractions was excessive both in amount and concentration as compared with normal blood sugar. Moreover, if a pyloric pouch or accessory stomach is made by isolating a part of that organ from its main body, the activity of the pouch is not affected by insulin nor by intravenous injections of glucose. And furthermore, Quigley and Hallaran have observed that the *spontaneous hunger contractions* of normal or vagotomized dogs are not modified by intravenously infused glucose in a wide range of doses. The discrepancy between the behavior of the gastric side-pouch and the main body of the stomach, just mentioned, points to a local automatism as the primary factor rather than to the condition of the blood, for the character of the blood flowing to the main stomach is necessarily the same. The problem as to the cause of the contractions, therefore, still remains unsettled.

Although the evidence is clear, therefore, that hunger contractions can occur in the absence of nervous government from the brain and spinal cord, there is strong testimony indicating that conditions in the brain may so affect the vagus nerve as to cause a large augmentation of the hunger contractions and consequently the hunger pangs. This evidence has come chiefly from the experiments by La Barre. He produced an experimental arrangement whereby the head of Dog B was connected with its body only by the vagus nerves; then he perfused this isolated head of Dog B with the blood of Dog A, which was allowed to run into the head and back again to the body of A. If now dog A, which is the donor, is given insulin to such a degree as to produce a definite hypoglycemia, there results as a conse-

quence of the passage of the hypoglycemic blood from A into the head of B an increase of the hunger contractions. Note again that the only connection between the head of Dog B and its stomach is through the vagus nerves. This experiment definitely shows that the impulses to increase gastric activity originated in the brain, because the blood supply to the brain was low in its sugar content and was transmitted to the stomach by way of the vagi. Further proof that the vagus nerves mediated the impulses of the brain, in these experiments, was obtained by noting that the hunger contractions ceased on the injection of atropine, the effect of which in blocking vagal impulses is well known. Similar observations have been made on human beings by Quigley, Johnson and Solomon.

Just as thirst is an indication of the need of water in the body and the capacity of the body to receive water, so hunger is a stimulus driving us to the taking of food. It is evident now that we have in our hands a means by which hunger pangs can be stimulated at will. In case of chronic inanition and absence of desire for food, it is only necessary to give a sufficient amount of insulin to reduce the blood sugar, whereupon the accessory vagus influence on gastric contractions is brought into play, and hunger pangs are produced which lead to the taking of food. It is probable also that insulin serves as a means of utilizing more effectively the food which is taken. Recent reports of the use of this strategy in persons who have poor appetites, eat little and are thin indicate that it is highly effective as a means of increasing the bodily stores.

Our behavior may be directed both by the desire of getting rid of a disturbing stimulus and by the desire to prolong or renew an agreeable stimulus. Hunger and thirst belong to the former category. Also in this category are the asphyxia of air-hunger, the discomfort of fatigue, and the unpleasantness of confinement or physical restraint. Each of these states is associated with an impulsive factor. Each one more or less vigorously spurs us on or drives us to action. Each may be so disturbing as to force us when afflicted by it to seek relief from intolerable annoyance or distress. On the other hand, experience may condition behavior by showing us that the taking of food, drink or exercise is accompanied by anticipated pleasure. It is thus that appetites are established for the repetition of these experiences; and when we are beset by an appetite we are tempted, not driven, to action—we seek satisfaction, not relief. The two motivating agencies, the pang and the pleasure, may be closely mingled. For example, when relief from the pang is found, the appetite may simultaneously be satisfied. In most of our experience as civilized human beings, appetite gives us an assurance of the supplies of food and water. If, however, the requirements of the body are not met in this mild and incidental manner, hunger and thirst arise as powerful, persistent and tormenting stimuli which imperiously demand the taking of food and drink before they will cease their goading.

REFERENCES

Beaumont, W.: Experiments and Observations on the Gastric Juice and the Physiology of Digestion. Plattsburgh, 1833. Reprinted by the Harvard University Press, 1929.

Cannon, W. B.: The Physiological Basis of Thirst. Proc. Roy. Soc. (London), 1918, B xc, 283.

Winsor, A. L.: The Effect of Dehydration on Parotid Secretion. Am. Jour. Psychol., 1930, xlii, 602.

Montgomery, M. F.: The Rôle of the Salivary Glands in the Thirst Mechanism. Am. Jour. Physiol., 1931, xcvi, 221.

Gregersen, M. I., and Cannon, W. B.: The Effect of Extirpation of the Salivary Glands on the Water Intake of Dogs While Panting. Ibid., 1932, cii, 336.

Gregersen, M. I.: Conditions Affecting the Daily Water Intake of Dogs as Registered Continuously by a Potometer. Ibid., 1932, cii, 344.

Cannon, W. B., and Washburn, A. L.: An Explanation of Hunger. Ibid., 1912, xxix, 441.

Carlson, A. J.: The Control of Hunger in Health and Disease. pp. vii + 319. Chicago University Press, 1916.

Christensen, O.: Pathophysiology of Hunger Pains. Copenhagen, 1931.

Bulatao, E., and Carlson, A. J.: Influence of Experimental Changes in Blood Sugar Level on Gastric Hunger Contractions. Am. Jour. Physiol., 1924, lxix, 107.

La Barre, J., and Destrée, P.: L'Influence des Variations Glycémiques sur la Motilite Gastrique. C. r. Soc. de Biol., 1930, ciii, 532.

Quigley, J. P., and Hallaran, W. R.: Effect of Carbohydrate Administration on Gastro-intestinal Motility. Am. Jour. Physiol., 1931, xcvii, 552.

La Barre, J.: Les Fonctions Contractiles et Sécrétoires de l'Estomac en Rapport avec les Variations du Métabolisme Glucidique. Bull. de l'Acad. Roy. de Méd. de Belg., 1931, 598.

Quigley, J. P., Johnson, V., and Solomon, E. I.: Action of Insulin on the Stomach of Normal Fasting Man. Am. Jour. Physiol., 1929, xc, 89.

THE RELATION BETWEEN CEREBRAL DIPLEGIA AND BIRTH INJURY*

T. D. GORDON, M.D.†
GRAND RAPIDS, MICHIGAN

It seems strange that there should be so much disagreement as to the etiology of a disease so common and so long known as spastic diplegia. We have not yet even agreed upon a name. It is called Little's Disease, Birth Paralysis, Spastic Paraplegia, Cerebral Diplegia, Congenital Cerebral Paralysis and Infantile Cerebral Palsy. French Neurologists would restrict the term "Little's Disease" to those cases associated with difficult birth. Years later who is to tell whether or not the birth was difficult? I have seen a child die on the tenth day after what was considered a normal, easy birth. No abnormal signs were noticed until the fifth day and the child was in a modern hospital. Autopsy revealed tentorial tears, subdural and intracerebral hemorrhages, and marked edema of the brain.

Little, in 1862, called attention to "the influence of abnormal parturition, difficult labor, premature birth and asphyxia neonatorum on the mental and physical condition of the child." He estimated that at least 75% of his cases were due to the process of labor. Since that time further proof has been given us by Schwartz, Ylppö, Jensen, Sharpe and Maclaire, Bronson Crothers, Ehrenfest and many others, that Little was correct.

The work of Philipp Schwartz of Frankfort on Main on "Diseases of the Central Nervous System Following Traumatic Birth Injury" has been the most pointed and convincing proof that spastic diplegia results from birth injury. He examined macroscopically and microscopically the brains of 300 individuals from birth to 30 years of age and described all stages of the pathological processes which result from intracranial hemorrhage. The brains of children dying soon after birth showed certain typically distributed hemorrhages both subdural and intracerebral. The evolution of these hemorrhages through stages of softening, organization, cyst formation, changes in glia cells, in ground substance and in axis cylinders was followed. In cases of spastic diplegia, lesions were found in exactly the same location and distribution as the hemorrhages in early fatal cases. Schwartz concludes that all the congenital diseases of the central nervous system need revision in the light of newer knowledge of birth injury. He feels that hydrostatic pressure tending to force all the body fluids into the region of the presenting part during uterine contractions, is one of the important factors producing rupture of small vessels within the brain itself. In vertex positions the presenting part is usually the region of the posterior fontanel, which is very close to the point of union of the longitudinal and the straight sinuses. After rupture of the membranes this region of the child's head is subjected only to atmospheric pressure, while all the rest of the child's body, being surrounded by amniotic fluid, is subjected to the pressure of the contractions of the uterus and the abdominal muscles. There occurs an enormous congestion of the longitudinal, the straight and the transverse sinuses. The vein of Galen and its branches are supplied by arteries which enter through the noncompressible base of the skull. These veins are unable to empty themselves into the already overfilled straight sinus and are subjected to the greatest strain. In these veins occur congestion, thrombosis and hemorrhage, depending upon the intensity and the duration of the pressure. The terminal veins and the lateral ventricular veins are the ones most often torn. It is in the areas of the brain traversed by the branches of the vein of Galen that most of the lesions are found in spastic diplegia.

Prolonged pressure upon the infant's head, excessive molding, tentorial tears, prematurity and hemorrhagic disease are also important causes of both meningeal and intracerebral hemorrhage.

We are particularly indebted to Sharpe from a neurological standpoint for keeping

*Chairman's address before the Pediatrics Section of the Michigan State Medical Society at the 112th Annual Meeting at Kalamazoo, September 15, 1932.

†Dr. Gordon is a graduate of the University of Michigan, 1909. He is Attending Pediatrician, Blodgett Memorial Hospital; Chief of Staff, D. A. Blodgett Home for Children.

before us the importance of birth injury. He examined clinically 5,192 cases of spastic paralysis. Eighty-one per cent were first-borns, 90% gave a history of prolonged and difficult labor, forceps were used in 76%, 17% were breech delivery, 64% were drowsy in the first week, 23% refused to nurse, 78% were not normally hungry, 39% showed twitching, 17% convulsions. Two weeks after birth 61% were considered normal and one month after birth 81% were apparently normal. Unfortunately no large series of cases has been followed from birth with a record of accurate observations of birth and the newborn period, and lumbar or cisterna puncture. I predict that such reports will soon appear.

No one doubts the frequency of birth injuries and intracranial hemorrhage. It is inconceivable that such injuries could cause so many deaths soon after birth and not cause permanent damage to the brains of a certain percentage of those who survive the injury.

Certain facts must constantly be borne in mind.

1. The fallacy of so-called "normal birth." Probably very few children are born without some injury. There is considerable molding of the head in most labors and all children are subjected to a certain degree of cerebral congestion during uterine contractions.

2. Because the cerebral cortex is not functioning at birth there can be considerable damage to the brain, without the appearance of very definite clinical signs during the newborn period.

3. Signs of brain injury may be present soon after birth but disappear in one to four weeks and the child be considered normal by the parents and the family doctor until the age of seven or eight months, when it is noticed that the child does not sit up, grasp objects, etc. This latent period without definite signs is one of the chief reasons why the later disability is not associated with birth trauma.

4. Certain neurologists and orthopedists and a few pediatricians have been slow to recognize the importance of birth injury because of their lack of association with labor and the newborn baby. They see their cases long after the pains and difficulties of labor have been forgotten by the mother and have no one to give them an accurate history of the course of labor and any signs which may have existed during the first week of the newborn period.

5. The distinction between meningeal and cerebral hemorrhage is important. It takes more than simply opening the skull and looking at the dural folds and the meninges to rule out intracranial hemorrhage. Those who oppose the theory that birth injury causes spastic diplegia give the following reasons for their belief. At autopsy signs of meningeal hemorrhage are not always found. They overlook the fact that the hemorrhages and other circulatory disturbances which destroy brain cells and tracts commonly occur within the brain itself. They say that meningeal hemorrhage resulting from labor is unilateral in at least half of the cases while the spasticity in cerebral diplegia is usually symmetrical or nearly so. Again, they do not take into account the intracerebral damage which is usually symmetrical or at least involves both sides of the brain. When Freud in 1897 stated that meningeal hemorrhage was not the cause of cerebral diplegia he did not realize the importance of intracerebral hemorrhage.

In view of the frequency of spastic paraplegia in premature infants, some consider it an arrest of development due to prematurity. It does not seem reasonable that one system of the body—the nervous system—or one part of it—the pyramidal tracts, could be singled out with any regularity for lack of development unless it were damaged by hemorrhage or some other process.

Another vague theory is that most cases of diplegia are due to a primary degeneration of certain neurons in the brain from some unknown cause. A few would attribute it to heredity, others to ill health of the mother during pregnancy or to fetal encephalitis of toxic or infectious origin. It is quite probable that a few diplegics, especially some of those accompanied by microcephalus and idiocy, are due to congenital defective development of the brain. A few may also be due to an intra-uterine encephalitis. The evidence, however, is growing that the pathological lesions which are found in the brains of these children are usually the result of hemorrhage originating at the time of birth. We must admit that this conception of the etiology holds out

more hope, at least for prevention, than the theory of primary neuronic degeneration from unknown causes.

For the ultimate clarification of this disputed subject, and the possible prevention of some of these unfortunate cripples, we need more carefully recorded histories of the course of labor: the position of the child, the duration of labor, the use of forceps or pituitrin and the condition of the child at the time of birth. We need especially more accurate observations and records of the child during the newborn period. These observations and records are sadly lacking even in many modern obstetrical hospitals. We have as yet very crude standards for observing and recording the behavior of the newborn baby. We need more minute, skilful and complete autopsy records of newborn infants, on those children who give a history of difficult labor, and especially on children who have spastic paralysis.

We need to exercise the utmost of skill and care in the diagnosis and treatment of intracranial hemorrhage in the newborn, for with early diagnosis and proper treatment some cases of cerebral diplegia can be prevented.

We need a continuous, strenuous program of education for the general practitioner who still does the most obstetrics. He must be taught the dangers of physiological labor and the still greater dangers in prematurity, difficult labor, haste in delivery, forceps, version, breech presentation and rough resuscitation. We need closer coöperation between the obstetrician, the neurologist, the orthopedist and the pediatrician.

REPORT OF A CASE OF BRONCHIAL ASTHMA DUE TO MOULDS

BARNEY A. CREDILLE, M.D.†
FLINT, MICHIGAN

The rather unusual occurrence of moulds as a factor in producing bronchial asthma merits a report of this case. Search has revealed few cases reported due to this type of sensitization; however, it is of sufficient importance for careful consideration in the diagnosis and treatment of bronchial asthma, especially with farmers and those that come in contact with such agents.

This patient, D. B., a farmer, aged forty, came to us April 30, 1931, complaining of bronchial asthma of several years' duration. First attack was experienced fifteen years ago, while threshing. Following this attack he had a similar attack in succeeding years during harvesting time. For the last five years in the months of October and November the patient has had asthma in a severe form. It is at this time that the silo on the farm is opened and the stock is fed from this silo. The contents of the silo consists of corn stalks, corn, grass and weeds. A few days after the opening of the silo there is a form of mould found on the feed stuff, and, using the patient's own words, he says that everything that is musty seems to bring on his asthma. Contact with stock and pets on the farm apparently has no influence on his asthma. This patient has one son, who also is subject to asthma. Family history is otherwise negative for allergy. On examination, the patient presented the typical picture of the chronic asthmatic, tall, thin, and of fair color. Patient presented considerable difficulty in breathing, with much wheezing, chest slightly barrel shaped, loud musical râles heard throughout the chest, heart normal position, no murmurs, abdomen and extremities normal.

Sensitization tests were done with 212 proteins, all scratch tests were negative. Intradermal tests revealed moderate reactions to timothy, orchard grass, sweet vernal, giant ragweed, chicken feathers and corn.

The patient was desensitized to grasses and the ragweed group. During the following threshing season he was free from asthma, but on opening up the silo on October 28, 1931, that night he had a severe attack of asthma and he continued to have asthma when handling the feed from the silo. The patient stated that he was suspicious of the corn smut, so he was tested against the corn smut, but no reactions were obtained. From the patient's history we decided there must be some other proteins in causing his symptoms besides above named factors. He was then tested to various moulds and for the first time on a scratch test he gave marked reactions to Aspergillus fumigatus. From the patient's history of being free of asthma when off of the farm and also of having asthma when coming in contact with mouldy grains and feed, also marked positive reactions to the moulds Aspergillus fumigatus, it seems logical to believe that this patient's symptoms are due primarily to moulds.

In the management of this case, patient was desensitized to grass and ragweed and advised to avoid contact with all mouldy grains, etc. At the present time this patient is entirely free of his asthma.

Conclusions: Asthma sensitization due to moulds comparatively rare in literature. Skin tests using moulds on forty-three asthmas were all negative. While sensitization to moulds is rather unusual, testing should be done with it in all obscure cases of asthma.

†Dr. Credille is a graduate of Tulane University, New Orleans, La., 1918, serving his internship at the Ancon Hospital, Ancon, Canal Zone, 1919-1920, and Childrens Hospital, Washington, D. C. He pursued post graduate work at the New York Post Graduate School and Hospital, New York. His practice is devoted to diseases due to Allergy and he is a member of the American Society for the Study of Allergy.

THE TREATMENT OF MALIGNANT AND PREMALIGNANT DERMATOSES*

CLYDE K. HASLEY, M.D.†
DETROIT, MICHIGAN

Malignant epithelial new growths of the skin and mucocutaneous surfaces have been classified since the time of Paget (1855) under two terms—"Flat" and "Infiltrating." It was the macroscopic morphology and the clinical course of the tumors which prompted physicians like Thiersch, Unna and others to perpetuate such a classification, so that today a flat carcinoma applies to the early rodent ulcer of Jacoby, and the infiltrating includes the squamous and mixed cell carcinomas. With the advent of the compound microscope, the microtone, differential stains, etc., microscopic cellular architecture has replaced the gross morphology, and a histopathologic classification has resulted which, in reality, is only an improved classification.

Today some skin histopathologists classify the malignant epithelial new growth under two divisions, namely, carcinoma and mixed cell epithelioma. This is rather unfortunate as it excludes both the benign epithelial tumors, arising from the basal layer of the skin or adnexia, which frequently undergoes carcinomatous degeneration in their later stages, as well as the premalignant dermatoses such as senile keratoses, leukoplakia, etc. Likewise, this histopathological classification of malignant epithelial new growth does not include nevi or the tumors arising from the pigment-forming tissues, which are classified by some as being nevocarcinomas and by others as nevosarcomas.

In the true sense of the word, carcinoma of the skin should be applied to describe only those malignant proliferations of the epidermis which tend to infiltrate and to invade the lymphatic spaces between fibrous bundles of the corium and in this way disseminate or metastasize. True carcinomas metastasize.

In this paper the term "epitheliomata" will be used to include both carcinoma and the rodent ulcer, which is classified by many as a benign tumor. Granted that the cell architecture will not warrant the basal type being classified as a true malignancy, it not infrequently happens that the location of the growth makes it extremely malignant. This is particularly true of the commonly seen growths on the eyelids, face and nose which have a tendency to slowly invade the orbital region. As the growth advances, the bone is invaded and death may ensue from hemorrhage due to an erosion of a blood vessel or less frequently to involvement in the brain.

Time will not permit us to go into the histopathology of the different epidermoid carcinomas, and, since the basal cell type runs a very much different clinical course, responds differently to treatment, and the prognosis is usually entirely different than that of a squamous cell variety, its treatment requires special description. We shall use, for the sake of brevity, the term "carcinoma of the skin" in its restricted sense, including only the squamous cell variety of new growths, and the smaller groups which are composed of the mixed cells.

Treatment of carcinomas of the skin will be discussed under six general heads—

(1) Prophylactic
(2) Surgery
(3) X-ray and Radium
(4) Combination of X-ray, Radium Therapy and Surgery
(5) Electro-coagulation
(6) Chemical Caustics—Pastes.

Prophylactic: Cancer prevention is the ideal method of treatment. It is the duty of the physician to point out the relation between chronic irritation and its effect in the origin of cancer even though much still remains to be learned about the cause of cancer. Ewing, in one of the Wayne County Beaumont Foundation Lectures, stated "Intraoral cancer is so closely dependent on bad teeth, tobacco and syphilis, that if these conditions were removed this group of cancer would disappear." So the clouds of obscurity are gradually being lifted and we can definitely assure our patients that cancer results in a losing battle against irritation and infection, and the

*Read before the Dermatology and Syphilology Section of the Michigan State Medical Society at the 112th Annual Meeting at Kalamazoo, September 14, 1932.

†Dr. Clyde K. Hasley is a graduate from Medical School, University of Michigan, 1918. He was Former Instructor in Dermatology and in Roentgenology at the University of Michigan; he is at present Associate Roentgenologist and Associate Dermatologist at Grace Hospital; Associate Roentgenologist at Children's Hospital of Michigan.

early removal of such prevents the degenerative processes from going further and thereby prevents a possible development of cancer.

Surgical treatment of epithelioma of the skin has been successful in many instances in the past. The author is of the opinion that it should not be used to the exclusion of X-ray and radium therapy in these modern times when there are so many thoroughly trained radio-therapists. The neighboring lymphatic glands should always be irradiated in skin carcinomas. Surgery should be considered as an inferior method of treating a malignancy because a larger percentage of permanent cures are obtained by irradiation and the cosmetic results are much better.

X-ray and Radium Therapy: Irradiation therapy is the method of choice in treating most malignancies of the skin. Either X-ray or radium used in carefully measured doses gives consistent and permanent results in most cases. Even in the metastatic skin carcinomas (carcinoma en cuirasse) irradiation therapy is still the best palliative form of treatment. One may ask at this point why it is possible to use either X-ray or radium in treating skin epitheliomas since there is a wide variation in the wave lengths in X-ray and the gamma rays of radium are even shorter and more penetrating. The energy of both is carried by electro-magnetic waves in small bundles, called quanta, but, as far as science knows, the same surface reaction results regardless of the wave length, provided the time factor varies with the filter, the size of the area treated, the time, etc. The so-called superficial X-rays, or the long rays, distribute most of their energy on the surface of the skin, while the short X-rays and the gamma rays of radium penetrate and distribute their energy to cells which the longer rays cannot reach. Hence, short X-ray and radium are indicated in the infiltrating type of malignancy of the skin and for the neighboring lymphatics. A proper depth dose must be given. The long waves are indicated when the so-called "cyto-caustic reaction" is desired. This reaction will be mentioned later in describing the hypermassive method of treatment for small basal cell lesions.

Method of Treatment: Each carcinoma is treated as an individual case. Its location, cell type, previous treatment, age of the patient, and associated diseases are factors which are considered before treatment is started. When it is possible and there are no contra-indications, the hypermassive fractional method of treatment is employed, using both filtered and unfiltered X-rays. For example, a squamous cell carcinoma of the cheek of approximately two cms. in diameter is treated locally. That is, the surrounding skin is thoroughly protected with lead and a hypermassive unfiltered treatment of five or six erythema doses may be given on the first day. This is supplemented by daily treatment of filtered X-ray for a period of approximately three weeks, following the Pfahler modification of the Van Zwaluwenburg-Kingery technic. The neighboring lymphatics are treated after our own modification of the Pfahler technic.

Radium is used in select cases. Regaud's method of treatment is used on the local lesion as well as on the lymphatics. This method requires a long time, since the radium is heavily filtered through platinum. We are of the opinion that this method is biologically sound as the length of treatment time required is sufficiently long to act on many of the cells during mitosis or during the stage when they are most easily affected by irradiation. Regaud states that the beneficial reaction following the use of radium is due to the so-called "elective" reaction, while radium destroys many malignant cells by this so-called elective reaction with doses which would be insufficient to produce destruction to normal cellular tissue. It is possible, however, to increase the dose so that's cytocaustic reaction follows. It is possible, then, to grade the dosage so that a malignant cellular absorption results. Regaud describes this peculiar property of radium as "a delicate cellular dissection" of the cyto-lethal elective action.

When the malignancy of the skin is a large one, the proper depth dose in X-ray treatment can be regulated by dividing the surface into small areas and treating each area individually. As a rule, we do not treat an area over 2 cms. square with a hypermassive and unfiltered X-ray. With the hypermassive treatment we do attempt to get some cyto-caustic reaction and our results on some of these hopeless cases have been most gratifying.

Combined Treatment of Surgery and Radiation: We have treated a number of lip-carcinomas with metastatic sublingual glands by the combined method of surgery

and radium packs. Our best results have been obtained by first treating the associated lymphatics with a radium pack, using platinum as a filter and the technic as outlined by Regaud. Later the lymphatic glands are dissected from the neck and after recovery from the surgical operation a second radium treatment is given, approximately four weeks after the surgical operation. We have several patients who have been clinically well three and four years after such treatment.

Electro-Coagulation Method: This method of treatment is particularly serviceable in treating lesions which have been underdosed over a long period of time with fractional divided X-ray doses. It is also indicated in a malignant degeneration of a roentgen dermatitis. This form of therapy stimulates the formation of new blood vessels, while repeated X-ray doses have a tendency to destroy the blood vessels. In some cases the electro-coagulation method is supplemented with deep X-ray therapy over the associated lymphatics. This, however, is not always necessary, depending upon the cellular architecture of the lesion.

Paste or Chemical Caustics: In the past, some physicians, as well as many lay-people, have applied pastes on malignant new growths. The particular paste which enjoys a fairly common usage among the cancer charlatans contains a very high percentage of arsenic which, when applied to the skin, produces a terrific destruction and on healing a horrible scar results. It very frequently happens that a terrific ulceration is set up which may never heal and only a relatively small percentage of the malignant lesions so treated results in a permanent cure. This form of treatment is mentioned in this paper only to be condemned because there are many superior methods of treatment.

Treatment of Basal Cell Carcinomas: Rodent ulcers, at least in their early stages, are localized lesions and do not invade the lymphatic nodes. A wide surgical excision results in a permanent cure of many of these lesions. The surgeon has a tendency, however, to remove only the ulcerated portion and thereby frequently leaves small cell nests which later result in recurrent malignancy. We are of the opinion that irradiation therapy is the superior method of treatment in the superficial type of malignancy. The basal cell carcinomas respond very readily to the hypermassive form of treatment, and their failure to respond to X-ray therapy is due to the fact that the lesion is underdosed early in treatment. If the lesion is a large one, that is over 2 cms. in diameter, the small areas at the periphery of the lesion are treated by the lead block method. This enables the operator to give the proper depth dose and avoid an extensive cyto-caustic reaction.

Treatment of Nævo Carcinomas: Our best results are obtained in this hopeless group of malignancies by using a combined method of treatment of irradiation and electro-coagulation. The local lesion is treated with heavily filtered doses of either X-ray or radium which are followed in a few days by electro-coagulation. The destruction must be very wide and deep. The lymphatics are then treated with heavily filtered X-ray over a period of three weeks.

The removal of the bluish-black moles and pigmented birthmarks, which are apt to be irritated by clothing, by the electro-coagulation method has undoubtedly prevented their degenerating into nævo carcinomas. When a mole is removed some normal tissue should be sacrificed since the irritation resulting from only a partial removal may be sufficient to start a malignant change.

Treatment of Sarcoma of the Skin will not be discussed excepting to state that heavily filtered X-ray doses are usually used.

Treatment of the Pre-Cancerous Dermatoses: Irradiation therapy is the method of choice in treating the pre-cancerous dermatoses. Either radium or X-ray may be used. The surrounding skin should be thoroughly protected particularly when hypermassive, unfiltered X-ray doses are given.

Leukoplakia: Some leukoplakias can be successfully treated by a removal of the irritating factor, such as smoking, the correction of poor mouth hygiene, the removal of infected teeth, etc., and later this may be supplemented with radium treatment.

Conclusions: Hypermassive irradiation treatment is the best known method of treating basal cell epitheliomas and precancerous dermatoses. The results are more uniform and recurrences less frequent. Irradiation is also the method of choice in treating squamous cell carcinomas of the skin.

THE THYROGENIC HEART*

JOHN L. CHESTER, M.D.†
DETROIT, MICHIGAN

The term "goiter" is somewhat indefinite. In the broad sense it is usually applied to any and all enlargements of the thyroid gland. More commonly the more modern expression, "toxic goiter," is used, and probably as an all-embracing term it is more appropriate, because, in all the various manifestations of the disease, the two central facts are, first, that there is a goiter, and secondly, that there is thyrotoxis. The dual conditions I shall hereinafter refer to as hyperthyroidism, but only under certain explanations and differentiations.

There are diseased thyroids which show practically no enlargements, yet they exhibit symptoms of toxemia, which naturally suggests the premise that the degree of hyperthyroidism is not dependent upon the size of the goiter. To go further: it has long been recognized that the differences in the manifestations of the disease have been so great as to indicate that there are really two separate diseases, one being called "exophthalmic goiter," and the other "adenomatous goiter with hyperthyroidism." Willius and Boothby are emphatic on this point, and their definitions of the two diseases are herewith quoted so as to clarify the concept as understood in this discussion:

"Exophthalmic goiter is a constitutional disease, apparently due to an excessive, probably an abnormal secretion of an enlarged thyroid gland, showing pathologically diffuse, parenchymatous hypertrophy and hyperplasia. It is characterized by an increased metabolic rate, with the resulting secondary manifestations, with a peculiar nervous syndrome and, usually, exophthalmos, with a tendency to gastro-intestinal crises of vomiting and diarrhea. The cause of the altered process and activity of the thyroid gland, if not unknown, is at least a matter of wide differences in opinion.

"Adenomatous goiter with hyperthyroidism is a constitutional disease, due to the presence in the thyroid gland of adenomatous tissue, which, by maintaining an abnormally high and unregulated concentration of thyroxin in the body, causes an increased basal metabolic rate, with the resulting secondary manifestations."

T. P. Dunhill of St. Bartholomew's Hospital, London, in an address made recently before the Inter-state Post Graduate Medical Association of North America, stated that observation over many years had driven him to the conclusion that patients may be seen showing every gradation between these two types, and that there is no well defined dividing line, and no gaps. Can we therefore say that the particularly named diseases attributed to Graves, Stokes, Basedow, et al., and our more modernly identified conditions known as exophthalmic goiter and toxic adenoma, may all be classified under the inclusive term, "hyperthyroidism"? For the practical elucidation of my particular subject, The Thyrogenic Heart, I think they can all be so included.

I have just made mention of the fact that the cause of the altered process and activity of the thyroid gland is a matter of wide differences in opinion. One school of thought believes that hyperthyroidism originates in the gland itself, while other investigators hold to the theory that the gland has had imposed upon it activity and enlargement due to external influences. It is becoming more and more recognized that a relation exists between the thyroid, gonads, pituitary, and possibly others, but it is not yet definitely known whether the polyglandular syndromes are due to coincident disease of several glands or to dysfunction of one reacting secondarily on another. I mention this difference of opinion on account of the influence the opposed conceptions may have in treatment. George W. Crile, of whom a fluent Southerner has said, he possesses such exquisite operating technic that he can "steal the gland with his patient's consent, but without his knowledge," is an enthusiastic proponent of the latter argument, and in support says:

"The route through which the thyroid gland becomes enlarged and hyperplastic is the adrenal gland and the sympathetic nervous system. The adrenal gland very certainly has an enormous power of driving the sympathetic nervous system, and in turn the sympathetic nervous system drives the thyroid, and when the thyroid is driven, it increases the output of thyroxin, and that increase of thyroxin sensitizes the nervous system so that the nervous system

*Read before the St. Clair County Medical Society, May 3, 1932.

†Dr. Chester obtained his M.D. degree from Saginaw Valley Medical College in 1900. He is now Attending Physician in the department of internal medicine, and lecturer in the Training School at Providence Hospital; he is Attending Physician in the department of internal medicine at Redford Branch of Receiving Hospital, Detroit, Michigan; he is Attending Physician in the department of Cardiovascular Diseases in Eloise Hospital—the William J. Seymour Hospital, Eloise, Michigan.

again is more sensitive to an incoming stimulus, and that, in turn, drives the adrenal gland harder, and so a vicious circle is set up."

Warthin also enters the lists at this juncture, with a pronouncement which, if not novel, is at least the latest in enlightenment on the subject of causation. He points out that in the general conception of hyperthyroidism there is a constantly enlarging clinical syndrome to which symptom after symptom has been added, until it has become impossible to distinguish clinically between exophthalmic goiter and toxic adenoma. He also considers that all individuals who may be grouped into either of these broad and variable syndromes present a clinical picture of a well defined type of distinct pathological constitution. In Europe they call this the hyperthyroid constitution. Warthin prefers the term, Graves' constitution, and is unwilling to believe that thyroid hypersecretion is the underlying etiologic factor in the development of hyperthyroidism. He believes that this constitution is predetermined at birth, and that the potentiality may remain latent or quiescent during the whole or part of the life of a person possessing it. Thyrotoxic symptoms, however, may develop at any time if there is a constitutional anomaly in that direction.

Hyperthyroidism is predominantly a disease of females, various authorities going so far as to state that prevalence as to sexes ranges all the way from one male to twenty females to one in six, depending on districts or countries where the disease is epidemic or not. Goiter, as the primary feature of the condition, has a predilection for certain neighborhoods. The local absence of iodin in food and drinking water probably, in large measure, accounts for its prevalence in such goiterous countries as Switzerland, and the areas immediately around our own Great Lakes. Some authorities consider that the present day rapid mode of living, the "jazz age," with its continuous excitement and stimulation of the emotions, has a not insignificant part in causation and increase in world-wide prevalence.

Excitement demands an increase in the secretions of the thyroid gland. That is an admitted physiologic fact. The World War saw many soldiers develop goiter practically overnight, which could only be attributed to the excitement and stress of warfare. But, the hereditary background must also be taken into account,—individuals who show such distressing symptoms and pathology on such short notice, were undoubtedly goiter victims *ab initio*.

Apart from the later cardiovascular manifestations, the chief symptoms of hyperthyroidism are to be found in the thyroid gland, eye, skin and muscles. When enlarged, the thyroid is usually soft and elastic, profuse with new blood vessels, and pulsating with variations in proportion to the intensity of the symptoms. The exophthalmic symptoms consist of a marked and variable protrusion of the eyeball, with wide orbits, often greater on one side than on the other. Von Graefe's sign is frequently to be observed,—a failure of the eyeball to move downward with the upper lid in looking downward. Irregular or stiff pupils are not uncommon, as well as a loss of the accommodation reflexes. Exophthalmos is rarely seen in the very young. In adults, it is usually marked, the more so as old age approaches.

The association of cardiac disturbances with thyroid disease has been more or less recognized for over a century. That pioneering thyro-cardiologist, the English physician, Caleb Hillier Parry, observed it in his first described case of exophthalmic goiter in 1815, which eventually had a fatal termination with symptoms of heart failure. From a historical and clinical viewpoint, Parry's report on this case, posthumously published by his son in 1826, approaches the classical. Forerunner of so many similarly observed cases in the years to come, it might well be excerpted from a 1932 case history. I quote it herewith:

"A married woman, aged thirty-seven, caught a cold in lying in. Subsequently she became subject to more or less palpitation of the heart, very much augmented by bodily exercise, and gradually increasing in force and frequency till my attendance, when it was so violent that each systole shook the whole thorax. Her pulse was 196 in a minute, very full and hard, alike in both wrists, irregular as to strength, and intermitting at least once in six beats. Twice or thrice she had been seized in the night with a sense of constriction and difficulty in breathing, which was attended with spitting of a small quantity of blood. She described herself also as having frequent and violent stitches of pain about the lower part of the sternum. About three months after lying in, while she was suckling her child, a lump about the size of a walnut was perceived on the right side of her neck. This continued till the period of my attendance, when it occupied both sides of her neck so as to have reached an uncommon size, projecting forward before the lower angle of the jaw. The part swelled was the thyroid gland. The carotid arteries on both sides were greatly distended, the eyes were protruded from their sockets, and the countenance exhibited an expression of agitation and distress, especially on any muscular

exertion, which I have rarely seen equalled. Bowels were usually lax. For a week she has had edematous swelling of her legs and thighs."

Following Parry, came a long line of observers from various countries who, at various times in the ensuing century, in turn contributed their time-honored impressions to the written history of hyperthyroidism and its cardiac associations: the Irishman, Robert James Graves, in 1835; the German, Karl von Basedow, in 1848; another Irishman, William Stokes, in 1854; and that brilliant Frenchman, Armand Trousseau, in 1856. Nor is the roster of thyrogenic pathfinders complete with a recapitulation of these historical names, as will be referred to later in this paper.

The expression, "goiter or thyroid heart," is comparatively new to American medical terminology, and our scanty literature on this important subject is even much later than American recognition of the thyrocardiac complex. In this respect we have lagged behind the Europeans, especially the Germans: as long ago as 1899, Friedrich Kraus coined the term, "Kropfherz," of which "goiter or thyroid heart" is a literal translation.

Now to consider the question of the etiology or primary cause of cardiac involvement in hyperthyroidism. Some few authorities consider that there is a certain degree of cardiac disturbance in all cases and with all forms of goiter. Others range their estimates of incidence all the way from 25 to 75 per cent. It will thus be seen that there is more than a little difference of opinion on the subject, which probably can, in large part, be accounted for by the difference in opinion as to what really constitutes cardiac involvement. Does tachycardia indicate a symptom of cardiac change, or can that only be explained by actual symptoms of heart failure? The fact remains, however, that cardiac changes do occur frequently enough to be considered a definite clinical entity, hence the term "goiter or thyroid heart," or "the heart in hyperthyroidism."

What are the etiologic or primary causes of cardiac involvement? To answer this question, a word of qualification must first be interpolated. We do not know absolutely the cause or causes, for the most modern conception is but based on a mixture of theory and fact,—more theory than anything else, but in the main, fairly well substantiated theory. This falls into three well defined channels which may be expressed as follows: the theory of mechanical pressure; the toxic theory; the mechanical theory of increased metabolism. There is, too, an accumulation of evidence that the causation might properly be attributed to a combination of conditions embracing pressure, increased metabolism, toxicity, and possibly some other elements, all acting simultaneously.

In support of the first theory which, by the way, is the oldest theory, that famous Frenchman, Pierre Carl Edouard Potain, in 1863, reported several cases of heart failure in which large colloid goiters pressed upon the veins and trachea. Out of his observations there has been built up, through the intervening years, the conception that such goiters have the following mechanical effects: they prevent adequate filling of the lungs, and thus produce emphysema, deficient aeration of the blood, and later asphyxia, with an end-result of cardiac overstrain. When this latter becomes chronic and progressive, there would be a finality of myocardial weakness.

A large goiter often presses upon the sympathetic ganglia on one or both sides of the neck, thus stimulating the accelerators, and bringing on tachycardia. The circular part of the ciliary muscle (Muller's muscle) may also be stimulated, and exophthalmos produced, which dual conditions,—exophthalmos and tachycardia,—are nothing more or less than the identical symptoms of Basedow's disease, without the toxicosis.

The weakness of the pressure theory consists in the fact that concurrent heart disease is frequently encountered in hyperthyroidism, even when the thyroid gland is not appreciably enlarged.

The explanation of the theory of increased metabolism is that the excess of increased thyroid secretion in the blood results in an oxidation process, and the breaking down of proteids in the tissues and bones, and the loss of weight due to loss of muscle substance, so that increased work on the part of the heart is necessitated. If prolonged for an indefinite period, this will eventually result in cardiac fatigue.

The toxic theory seems to be the focus of most attention at the moment, and this, briefly, is based on the supposition that the substance secreted by the thyroid gland, be it increased or altered thyroxin, poisons the

myocardium, acting either through the cardiac nerves, or directly on the heart muscle.

Hirschfelder, enlarging on the physiologic effects of thyroid secretion, shows that there is also a general stimulation of the peripheral nerves, both medullated and sympathetic. He further points out the distinct action of these substances on the circulation:

> They stimulate the depressor or afferent nerves from the heart, giving rise on the one hand to cardiac sensations, palpitation and anginal pains, and on the other hand to vaso-dilatation and low diastolic blood-pressure.
>
> They stimulate both the vagi and the accelerator nerves, the action on the accelerators being predominant and causing tachycardia. The same stimulation of the other fibers of the cervical sympathetic gives rise to the peculiar ocular signs of the disease, the protruding eyeballs.

Cleghorn, in describing the effects of thyroid extract on the cardiac muscle, has shown that there is an increase in the size and force of the contraction, which manifests itself in the increased pulse pressure, increased maximal pressure, and cardiac hypertrophy. From experimentally induced hyperthyroidism in animals, it has been noted that various other infections have been simultaneously incurred, which naturally suggests the possibility that many cardiac changes in humans may be the result of secondary infections. This raises up another theory of cause, on which further investigation may throw some light.

The leading authorities seem to be in complete accord that the most important clinical problems cardiovascularwise arise when the heart is involved in toxic thyroid conditions,—in cases of exophthalmic goiter and toxic adenoma,—true hyperthyroidism. Simple goiter, non-toxic adenomatous goiter, and myxedema also provide certain cardiac complications on occasion, but not to the same extent. In any case, these latter conditions are not contained within the scope of my discourse, and may be dismissed from the present discussion.

A very frequent set of symptoms often observed in the early stages of hyperthyroidism, consists of palpitation, tremor, tachycardia, which may be occasionally paroxysmal, dyspnea, and sometimes a mild sensation of intermittent pain in the region of the apex of the heart. In the absence of more conclusive evidence, one could hardly assume that the heart has actually been damaged, although the inference can properly be drawn that it is undergoing a strain, and the symptom of tachycardia alone should be clinical evidence enough to prove that the immediate cause is the hyperthyroidism. Of all functional findings in such cases, tachycardia is pre-eminent, and I attach a significance to this single symptom, whether the irregularity be temporary or continuous, to the extent that whenever I find it, I immediately look for a possible hyperthyroid background.

I grant you that the same symptoms might easily be the result of an increased amount of work imposed on the heart by violent exercise, but in this event, the symptoms would naturally subside with the cessation of the exercise. When established, and as an accompaniment of hyperthyroidism, subsidence would be dependent on the remission of the disease, either spontaneously or by appropriate treatment. The fact I want to drive home is this: that most thyro-cardiac conditions begin inauspiciously, at first burdening the heart but little, and often of insufficient prominence to demand serious attention. When surgical intervention is resorted to for the glandular trouble in the early stages, the heart symptoms are seldom, if ever, considered an added risk. It is when the hyperthyroidism persists for months or years, that the accompanying heart complications acquire clinical importance.

The successive steps in the establishment of heart disease have been well demonstrated by Thacker, Willius, Hirschfelder, and others. There is the increased metabolism, and increased cardiac work as evidenced by tachycardia, increased output of blood, and a tendency towards hypertension. Fatigue eventuates, which leads in turn to hypertrophy, lack of tonicity, and dilatation without valvular defects. The pulse may beat 100 to 160 or over; on auscultation the first sound is usually accentuated, with a frequence of systolic murmurs at the base; all of which signs and symptoms are likely to disappear if the hyperthyroidism abates spontaneously, by treatment, or by surgical operation, before the heart is seriously involved.

Toxicity assists in the degenerative process, especially if the heart is constitutionally weak and susceptible. Such arrhythmias

as auricular fibrillation and auricular flutter are usually the final symptoms of definite heart failure, which most commonly is of the congestive type. The diastolic murmur of aortic origination, or the pre-systolic murmur of mitral causation, are not symptomatic of a hyperthyroid base. When present, the explanation will usually be found in cardiovascular syphilis and rheumatic fever.

A word may now be said on pathology. The most usual findings are moderate hypertrophy of the left ventricle, dilatation of the right chamber, and slight fatty change. Sometimes there are a few scars and round cell infiltrations, but in the majority of cases no marked changes are to be seen, even though the patient may have evidenced undoubted symptoms of heart failure during life. In 1926 I had the privilege of hearing Cyrus C. Sturgis, of Ann Arbor, address the Inter-state Post Graduate Assembly of North America, and was impressed in a very permanent way with a statement which he then made:

"I have observed two patients with Graves' disease who died a cardiac death, and at necropsy were found to have myocardial necrosis, which in one case was widespread, and in the other focal in distribution. The pathologist interpreted these lesions as indicative of an extreme intoxication acting upon a myocardium which was bordering upon complete exhaustion and, therefore, susceptible to injury. It is more common, however, for the pathologist to find only relatively slight changes in the heart, even when the patient has presented all of the clinical evidences of cardiac failure. This is merely another example of the inability of the pathologist to demonstrate an anatomical change when there is functional impairment. The riddle of the cause of cardiac failure in exophthalmic goiter and toxic adenomatous goiter must await an advance in methods of study and more observations for its complete solution."

No study of hyperthyroidism can possibly be complete without an understanding of the principles of basal metabolism and the method of arriving at the rate. It is a measure of the activity of the thyroid gland, the internal respiration or oxidation in the tissues. The basal metabolic rate is increased with over-activity, not necessarily associated with an increase in the size of the gland, and decreased with under-activity, the determinations being most helpful in making a diagnosis, and also serve to demonstrate the efficiency of the treatment, besides regulating the dosage.

In approaching the subject of treatment of the thyrogenic heart, I will begin by perpetrating an intentional bull: treat it before it gets that way! In other words, if a Sinai-like commandment were asked for and be permissible, I would without hesitation hand it down to the effect that if glandular abnormalities were detected and properly checked at the first intimation of symptoms, there never need be a thyrogenic heart. How many children of school age do we yet see, with thyroid manifestations and unsightly necks, which have received little or no medical attention, even in the face of all the goiter propaganda disseminated by health and educational authorities? These comprise the majority of the thyrogenic hearts to be. Feed these children iodin now and you will materially, perhaps almost totally, reduce the incidence of hyperthyroidism with its cardiac complications ten, fifteen or twenty years hence.

You cannot cure goiter with iodin after the patient is twenty or twenty-five years of age. Iodin can do little for a long standing case of hyperthyroidism, and the effects it has on cardiac conditions might well be duplicated by drinking aqua pura! Iodin therapy is most effective in the young, and about the only indications for its use in grown-ups are as a means of preparation for surgical interference, and sometimes in post-operative treatment.

Having thus disposed of the methods towards prevention of thyrogenic conditions, we will now proceed to what is germane to the subject of this paper: the treatment of the fait accompli, the actual thing, the heart which has been affected by hyperthyroidism.

The first essential of any palliative treatment is in the direction of amelioration or removing the causative hyperthyroidism, for none of the recognized measures which are usually employed in the treatment of heart disease can be of any permanent value until this is done. To reduce the thyroid secretion to its lowest possible ebb is the ultimate aim, and the principal methods at our disposal towards accomplishing this are: rest, radiation, medical and surgical treatment. These may be effective individually or in combination.

In mild cases, absolute rest in the horizontal position often lessens the secretion and diminishes the size and number of the heart beats. As undue exercise and over-excitement are so often the immediate causes of hyperthyroidism, it naturally follows that when the causative agencies are removed, the resulting symptoms, and especially the abnormal secretion, will tend to subside. Rest, physical and mental, is na-

ture's sovereign remedy in any condition, and I need hardly present a brief for it to any student of the cardiac complex. Psychotherapy and suggestion also have their uses. Who can doubt the sedative influence of the absence or abolition of worry, nervousness, and the neurotic tendencies which are so characteristic of this disease?

A patient suffering from hyperthyroidism, with its increased metabolic rate, expends more energy in performing a given amount of work than do normal individuals. Thus the loss in weight. High caloric diets should therefore be given because of these increased demands on the tissues. Exposure of the thyroid gland to X-ray therapy has many adherents. Personally, I consider such treatment of minor importance, with results less actual than psychological. Specific sera have yet to prove their worth.

There is a growing consensus of opinion that a combined course of surgical and medical treatment is the most rapid and most effective method for correcting thyroid abnormalities. Before discussing the nature and value of this, let us first consider what the objectives are. In the final analysis the successful management of a case of hyperthyroidism hinges on the achievement of five results: 1, relief of symptoms and elimination of abnormal signs; 2, reduction of the basal metabolic rate to normal; 3, reduction of the pulse rate to normal; 4, increase in weight to the normal standard; 5, restoration of economic usefulness.

As hyperthyroidism is peculiarly preponderant in the female of the species, the removal of unsightly goiters in these days of the much exposed epidermis, probably has a strong appeal, which deference to fashion often overcomes natural repugnance to surgery. An enlarged gland which patently presses on the important structures of the neck and is responsible for the visible distressing symptoms of the disease, should certainly be removed. Thyrotoxicosis is a sure indication for surgicaal operation, as are malignancies in all patients in middle age or past. Iodin in the form of Lugol's solution (compound tincture of iodin), should be given for a week or ten days with rest in bed. The basal metabolic rate and the pulse rate will go down, the tremor is likely to disappear, restlessness and excitement will abate, and the patient in this period will attain the maximum degree of improvement. Then should the surgeon operate, removing two-thirds or three-quarters of the gland. Some surgeons perform two or more operations at intervals rather than making too extensive an operation at one sitting. Total thyroidectomy is sometimes done, but this necessitates the continuous use of thyroid extracts afterwards. Lugol's solution should be continued after operation, nor should medical supervision cease with its successful termination.

So much for the treatment of the thyroid condition. What can be done for the cardiac complications? It is a clinical fact that most patients even with pronounced cardiac failure can safely undergo a thyroidectomy if proper pre-operative precautions are taken. In addition, there is usually a pronounced improvement in the cardiac symptoms after it is done. The cardiac burden is invariably lessened by the measures taken to reduce the basal metabolic rate. In fact the pre-operative treatment for the hyperthyroidism in every respect has a beneficial effect on the heart. Digitalis is useful where there is evidence of heart failure, and especially where there is auricular fibrillation or irregular heart action. Generally speaking, pre-operative management demands the careful consideration of each individual patient, and treatment should consist of every procedure that is of proven value in the relief of cardiac failure from other than thyroid causes.

Where there is a wide pulse deficit, râles at the base of the lungs, and obvious signs of edema, a thyroidectomy would probably be inadvisable until such conditions are appropriately treated. Briefly, the heart condition is generally worse the longer the duration of the hyperthyroidism. This again brings us back to my original remark: treat the thyrogenic heart before it gets that way!

REFERENCES

Cleghorn, A.: The Action of Animal Extracts, Bacterial Cultures and Culture Filtrates on the Mammalian Heart Muscle. Amer. Jour. Physiol. Boston, 1899.
Crile, George W.: Hyperthyroidism. Proceedings of Inter-State P. G. Med. Assem. of N. A., 1927.
Davison, T. C.: Thyroid Diseases of Thyrotoxicosis. 1928. Proceedings, Inter-State P. G. Med. Assem. of N. A.
Dunhill, T. P.: Surgical Treatment of Auricular Fibrillation occurring in Toxic Goiter. Proceedings of Inter-State P. G. Med. Assem. of N. A., 1928.
Hirschfelder, A. D.: Diagnosis of the Heart and Aorta.
Sturgis, Cyrus C.: Effects of Diseases of the Thyroid Gland on the Heart and their Treatment. Proceedings of Inter-State P. G. Med. Assem. of N. A., 1926.
Thacker, V. J.: The Heart in Hyperthyroidism. Med. Clinics of the N. A. Tulane U., January, 1926.
Warthin, A. S.: The Constitutional Entity of Exophthalmic Goiter and So-called Toxic Adenoma. Am. Int. Med., 2:553, Dec., 1928.
Willius, Frederick A., and Boothby, Walter M.: The Heart in Exophthalmic Goiter and Adenoma with Hyperthyroidism. Med. Clinics of N. A., Hayo, July, 1923.

TREND OF CLINIC SERVICE IN DETROIT

DAVID J. SANDWEISS, M.D.*
DETROIT, MICHIGAN

The basic data for this study were supplied by the Research and Budget Departments of the Council of Social Agencies of Metropolitan Detroit. These data were carefully checked, and present as accurately as available sources permit a true picture of clinic attendance and clinic costs in the City of Greater Detroit.

In Greater Detroit (population 1,675,000) there are three types of free or part pay clinics:

(a) *Community Fund Clinics:* These are maintained by hospitals or institutions and the operating expenses are met by the Community Fund, with money raised yearly by a city-wide campaign for private contributions. There are seventeen such clinics serving free and part pay patients.

(b) *City Clinics:* These are under the management of the City departments of Detroit and Highland Park, and are maintained by tax funds. There are five of these, and they are in general entirely free.

(c) *Private Charitable Clinics:* The Children's Fund of Michigan conducts a private clinic on a charitable basis since 1930.

1. AMOUNT OF CLINIC SERVICE

TABLE I. CLINIC VISITS AT COMMUNITY FUND CLINICS, OTHER CHARITABLE CLINICS, AND CITY CLINICS FOR THE CALENDAR YEARS FROM 1922 TO 1931 INCLUSIVE*

Year	Comm. Fund Clinics	Children's Fund of Mich.	City Clinics	Total Visits
1922	137,644	.....	No Report	.....
1923	135,215	.....	No Report	.....
1924	167,432	.....	No Report	.....
1925	185,551	.....	No Report	.....
1926	207,212	Established in 1930	No Report	.....
1927	292,917	.....	No Report	.....
1928	331,910	.....	421,557	753,467
1929	336,682	.....	421,936	758,618
1930	415,574	3,690	614,770	1,034,034
1931	475,651	5,651	863,839	1,345,141

*The above figures were obtained from the Research Department of the Detroit Community Union.

NOTE: The Detroit Water Board made the following population estimates of Metropolitan Detroit: 1922—1,031,600; 1931—1,675,000.

Table I shows the clinic attendance at Community Fund Clinics, Other Private Clinics and Public Clinics for the calendar years from 1922 to 1931 inclusive. An analysis shows that:

(a) In 1922, there were ten clinics associated with the Community Fund, totaling 137,644 visits. In 1931, ten years later, there were seventeen clinics associated with the Community Fund, totaling 475,651 visits, an increase of 250 per cent. During this period of time, the population increased approximately 62 per cent from 1,031,600 to 1,675,000.*

(b) In 1931 in Greater Detroit, a city with a population of 1,675,000, there were 1,345,141 visits made to all dispensaries, both Community Fund and City clinics, an increase of nearly 100 per cent in the last three years, due very largely to widespread unemployment.

(c) In terms of separate patients, 97,795 individuals visited the Community Fund Clinics in 1931. During the same year (1931), 300,998 individuals** were reported by *all clinics* (Community Fund and City clinics combined). No information is available on the amount of duplication among clinics. If this were an unduplicated count 18 per cent of the total population of Greater Detroit would have sought medical aid in these institutions in one year (1931).

2. COST PER VISIT OF SERVICE (EXCLUDING DOCTOR'S FEES)

Table II shows the cost per visit and the distribution of that cost in six Detroit Clinics maintained by the Community Fund for the years 1928-1931 inclusive. Table III shows the annual cost of service per patient in these six clinics and the distribution of that cost for 1930 and 1931.

It will be noted that:

(a) The average cost per visit for six Community Fund clinics† in 1928, 1929, 1930 and 1931, ranges from $1.05 to $1.43 (maximum for general clinics $1.63, minimum for general clinics $0.66), towards which the Community Fund appropriates approximately $0.79 to $0.97 per visit.

(b) The average annual total cost to the clinics in 1930 and 1931 for each patient, regardless of the number of visits made during the year, including all types of service rendered, was $6.59 for 1930 and $5.76 for 1931 (maximum for general clinics $12.40, minimum for general clinics $2.57), of which the Community Fund paid $4.74 during 1930 and $4.35 during 1931. The decrease in per visit cost and cost per patient per year to the Clinics for 1931 was very largely due to an increase in attendance or visits for that year without any increase in the non-medical personnel.

*Dr. Sandweiss is a graduate of the University of Michigan B.S. 1921, M.D. 1923; Residence Michael Reese Hospital, Chicago 1924-25; Attending Physician in Medicine North End Clinic.

*These estimates of the population for Greater Detroit were made by the Detroit Water Board.

**The exact number of separate individuals attending the City Physician's Office and Receiving Hospital O. P. D. could not be obtained. These were determined by dividing the total number of visits made to these two clinics by the average number of visits each patient made per year in the Community Fund Clinics.

†The clinics included in the analysis on cost are Grace O.P.D., Harper O.P.D., North End Clinic, St. Mary's O.P.D., Shurly O.P.D., and Sigma Gamma Clinic.

TABLE II

COST PER VISIT IN SIX DETROIT CLINICS MAINTAINED BY THE COMMUNITY FUND*

Distribution of Cost Per Visit

	1928	1929	1930	1931
Community Fund Appropriation	$ .93	$ .97	$ .84	$ .79
Per Visit Income (On Basis of Total Visits)	.44	.46	.33	.26
Clinic Cost	1.37	1.43	1.17	1.05
Cost to Indigent Patient	.00	.00	.00	.00
Cost to Part Pay Patient	.68	.75	.71	.82

*The clinics included are: Grace O. P. D., Harper O. P. D., St. Mary's O. P. D.—general clinics attached to the hospitals. North End Clinic—general clinic not attached or associated with any hospital. Shurly O. P. D.—special clinic (eye, ear, nose and throat) attached to hospital. Sigma Gamma Clinic—special clinic (orthopedics) not attached or associated with any hospital.

The basic figures (from which the figures in the table were derived) on cost of rendering the service in the above 6 clinics, the appropriation by the Community Fund and the receipts from part pay patients were obtained from the Budget Department of the Detroit Community Union. A small amount of contributions from sources other than the Community Fund does not appreciably affect the total.

TABLE III

COST OF SERVICE PER PATIENT PER YEAR IN SIX DETROIT CLINICS MAINTAINED BY THE COMMUNITY FUND*

	1930	1931
Community Fund Appropriation	$4.74	$4.35
Per pt. Income (on basis of total pts.)	1.85	1.41
Clinic Cost	6.59	5.76
Cost to indigent patients	0.00	0.00
Cost to part pay patients	4.03	4.52

*See footnotes Table II.

TABLE IV

ANALYSIS OF VISITS MADE TO ALL CLINICS MAINTAINED BY COMMUNITY FUND SHOWING FREE AND PART PAY VISITS

	1928		1929		1930		1931	
	Visits	Per cent	Visits	Per cent	Visits	Per cent	Visits	Per cent
Part Pay	199,519	60.2	194,351	57.7	172,697	41.6	133,067	28.0
Free	132,391	39.8	142,331	42.3	242,877	58.4	342,584	72.0
Total	331,910	100.0	336,682	100.0	415,574	100.0	475,651	100.0

Note: The above figures for total visits and total free visits were obtained from the Research Department of the Detroit Community Union.

TABLE V

ANALYSIS OF TOTAL CLINIC VISITS IN GREATER DETROIT (COMMUNITY FUND AND CITY CLINICS COMBINED) SHOWING FREE AND PART PAY VISITS

	1928		1929		1930		1931	
	Visits	Per cent	Visits	Per cent	Visits	Per cent	Visits	Per cent
Part Pay	201,578	26.8	196,535	25.9	175,963	17.1	134,847	10.0
Free	551,889	73.2	562,083	74.1	858,071	82.9	1,210,294	90.0
Total	753,467	100.0	758,618	100.0	1,034,034	100.0	1,345,141	100.0

Note: The above figures for total visits and total free visits were obtained from the Research Department of the Detroit Community Union.

(c) On the basis of this analysis, the total annual cost** of operating all of the clinics financed by the Community Fund ranged from $450,000.00 to $500,000.00, towards which the Community Fund appropriates from $310,000.00 to $360,000.00 annually.

The figures on costs do not include interest on capital investment or depreciation of building, furnishings and equipment; nor do they include remuneration to physicians for the services they render (except in a very few instances) as the physicians in attendance render their services gratis. Thus several very important items are not included.

It must also be remembered that the average clinic costs above given for services on an annual basis (*e.g.*, $5.76 per patient for 1931) do not represent in terms of money the average annual medical needs of these individuals nor, for that matter, the total cost of medical services they received during that year. These patients might have received, and undoubtedly did receive, services from other clinics, private practitioners, consultants, drug stores, irregular practitioners, etc. These items when added would increase the above figure.

3. PROPORTION OF PAYING VISITS

Tables IV and V analyze the total clinic visits in Greater Detroit showing free and part pay visits† for 1928, 1929, 1930 and 1931.

It will be noted that:

(a) The part pay visits to the Community Fund clinics (Table IV) decreased from 60.2% in 1928 to 28.0% of the total attendance in 1931.

(b) When all the Detroit dispensaries are considered (Table V), both the Community Fund and city clinics, the part pay visits decreased from 26.8% in 1928 to 10% of the total attendance in 1931.

The decrease in part pay visits was very largely due to widespread unemployment.

4. AVERAGE FEES OF PAYING PATIENTS

Tables II and III also show the average fees of paying patients both per visit and throughout the year. It will be noted that:

(a) The patients making free visits bring no income to the clinics, whereas the part pay patients pay fees for these services. In 1928, 60.2% of the total visits to the Community Fund clinics brought in on the average $0.68 for each visit, while in 1931, 28% of the total visits were part pay, averaging $0.82 for each visit.

The receipts for visits to expensive types of service such as X-ray, physiotherapy, and dental, materially increase the average receipts for the group as a whole. If average receipts per visit were segregated by types of service and compared with average costs in each type it is problematical whether the average receipts in any group would exceed the average costs. In addition it should be noted that in some clinics patients who receive free care in some departments make full payment in others.

(b) On the basis of average fees per visit for paying patients (as noted in 4a) the part pay patients pay to the Community Fund Clinics from $110,000.00 to $150,000.00 annually.

John W. Ross, V. Chairman

5. DOCTORS' SERVICES

An effort has been made to calculate in terms of visits and then to evaluate in monetary terms the amount of free service being rendered to the community by doctors who are giving their services, gratis, in clinics. This number of visits was arrived at by subtracting from the total clinic visits the visits to clinics which paid their doctors, and the visits on which the patient saw some member of the clinic staff other than a doctor (such as a dietitian, technician or nurse, etc.). The total of visits made to doctors who were not paid for their services, in both Community Fund and public clinics, was for the year 1931 over 500,000.

The physicians on the staffs of the above clinics are often specialists in their respective fields. In an effort to evaluate in monetary terms the amount of free service being rendered to the community by these doctors, it is assumed that $1.00 would be a fair index of their contribution to the community for each visit made to them by patients in clinics. On this basis the physicians contributed in terms of money free medical service valued at more than $500,000.00 during the one year of 1931. This, of course, does not include the free medical and surgical services rendered by these doctors to those clinic patients who were confined in hospitals during that same year.

A perusal of the above facts brings out the following important points:

1. The increase in visits to the free and part pay clinics was out of proportion to the increase in population since 1922. In the last ten years the visits to the Community Fund Clinics increased 250 per cent while the population increased approximately 62 per cent. In 1931 approximately 18% of the total population of Greater Detroit sought medical aid in all the Detroit free and part pay clinics.
2. The cost per visit to the paying patients (in the

**Since costs for some clinics cannot be separated from hospital and other costs, this estimate has been made by applying the average cost per visit derived from the actual cost figures for the six clinics above (for the years 1928, 1929, 1930 and 1931), which represent 74 per cent of the total number of visits in all Community Fund Clinics. The above estimate does not include the costs of operating the City Clinics.

†"Visit" as interpreted in this study refers to any visit to a physician, consultant, X-ray department, laboratory, electrocardiogram or basal metabolism department, etc. The cost of the visit, therefore, includes the cost of these consultations and examinations.

Community Fund clinics) has increased since 1928 (from 68 cents to 82 cents) but the proportion of paying patients to these clinics has rapidly decreased (from 60.2% to 28.0% of the total visits).

3. The total annual cost of operating all of the clinics financed by the Community Fund ranges from $450,000.00 to $500,000.00. This does not include interest on capital investment, depreciation of buildings, furnishing and equipment; nor does it include the cost of operating the public clinics. Towards the annual operating expenses of the Community Fund Clinics, *i.e.*, $450,000.00 to $500,000.00, the Community Fund appropriates annually from $310,000.00 to $360,000.00 and the part pay patients pay in small fees annually from $110,000.00 to $150,000.00.
4. The amount of free medical service being rendered to the community by doctors when viewed in terms of clinic visits totaled more than 500,000 for the year 1931. Many of these physicians are specialists in their respective fields and on the basis of $1.00 per visit for their services in clinics, the doctors contributed in terms of money free medical service valued at more than $500,000.00 during 1931. This does not include the free medical and surgical services rendered by these doctors to those clinic patients who were confined in hospitals during the same year.

INTESTINAL OBSTRUCTION DUE TO IMPACTED GALL STONE

CASE REPORT

JOSEPH JOHNS, M.D.†
IONIA, MICHIGAN

In cases of acute intestinal obstruction, impacted gall stones are too seldom considered as an etiological factor. The first case was recorded in medical literature by Bartholin in 1654. Wagner collected from the records 334 cases in 1914.

The mechanism by which the gall stone reaches the intestinal tract is through enlarged cystic or common duct, perforation within the adhesions which are formed between gall bladder or ducts and the surrounding viscera. This perforation may occur without any alarming symptoms; however, the patient will give history of chronic cholecystitis or cholelithiasis. Some of these patients are cured spontaneously by the passage of the stone. In Wagner's series 93 passed the stone by rectum, 82 died without operation, and 159 were operated on.

CASE REPORT

F. M. H., No. 172, aged eighty-two. Clinical Course: The patient states that during the past two or three years he had occasional mild attacks of abdominal distress from one to two hours after meals, accompanied by belching of gas, but no nausea or vomiting. Eight months previous to admission he had one transient attack of sharp knife-like pain in the right upper quadrant of the abdomen, accompanied by nausea and vomiting. He never had fever nor jaundice, nor bloody, tarry or clay-colored stools.

Two weeks before admission he had an attack of indigestion, characterized by general abdominal pain, nausea and vomiting, which lasted three days. This was followed by anorexia and belching of quantities of gas. A day before the admission the patient was suddenly seized with severe epigastric pain and vomiting. The pain was cramp-like in character, and recurred every few minutes until he entered the hospital. At the first the vomitus consisted of recently eaten food, but later changed to a brownish watery fluid with a foul odor. In spite of many enemata he passed no fecal material but a small amount of flatus.

Physical Examination.—The patient was a moderately obese and well preserved, elderly man, lying in bed in some discomfort, the face slightly flushed. The mucous membranes were very dry and the tongue was coated. The abdomen was somewhat distended but showed no peristalsis or localized swelling. On palpation there was a diffused tenderness, most marked around and just above the umbilicus. No masses were palpable. Some spasm of the abdominal musculature detected on the right lower quadrant. On percussion elicited dullness in the right lower abdomen, but no shifting dullness of fluid wave found. Mild general arteriosclerosis and well marked chronic myocarditis. On admission the patient's temperature was 98.3 degrees, pulse 102, respiration 25. Leukocyte count was 8,300.

Fig. 1. Stone removed at operation. Measurement in millimeters.

†Dr. Joseph Johns is a graduate of the American Medical Missionary College of Chicago, 1910. (This college merged with the University of Illinois, Chicago.) He received internship at Providence Hospital of Detroit in 1920; was Assistant of Clinical Surgery in Royal Infirmary of Glasgow in 1923; did post-graduate work at the Laboratory of Surgical Technique of Chicago in 1927, and Mayo Clinic in 1929. He is Associate Surgeon in the Clinton Memorial Hospital, St. Johns, Michigan.

Hemoglobin 87 per cent. Blood pressure 140/90. The urine was normal except for the presence of indican. The patient continuously refused X-ray examination and gastric analysis.

Pre-operative Diagnosis: Acute intestinal obstruction of unknown cause, possibly a malignant growth.

Operation: May 29, 1929, under local anesthesia, incision was made in the lower mid-abdomen. When the peritoneum was opened a small amount of straw-colored fluid escaped. A distended small bowel presented itself in the wound. In the right iliac fossa, a large gall stone was found impacted in the terminal ileum, four inches above the ileocecal valve and the proximal ileum was considerably dilated. After isolating the loop containing the stone, the enterostomy clamps were applied above and below. The stone 25-19 millimeters was removed through a longitudinal incision, directly over it. The rent was closed by a continuous suture. The rest of the abdomen was not explored. Closure was carried out in the usual manner without drainage. The patient received 1300 c.c. of 1 per cent salt solution by hypodermoclysis before the operation. Post-operative course: temperature, pulse, and respiration were slightly elevated on the second day, but returned to normal on the third day. On the fourth day the bowels moved voluntarily. The wound healed per primam. On the fourteenth post-operative day the patient had an attack of heart failure and died in a few hours. No autopsy was permitted.

SOME NOTES ON SICKNESS INSURANCE IN GERMANY, 1932

WILLIAM A. EVANS, JR., M.D.*
DETROIT, MICHIGAN

In recent years there has been an ever growing interest in economic problems, international, industrial and social. It seems likely that many social and economic changes are imminent or in the process of rapid evolution. The problems concerned in the care of the sick are intimately related to the prevailing economic and social concepts. The increasing agitation for a change in the medical practice in the United States makes an examination of systems that have developed in foreign countries of definite significance. In considering alterations in the present system, it is well to consider where others have succeeded or failed. These few observations which I offer have been gained from some published expressions of medical opinion in Germany as well as from conversations and otherwise informal expressions of persons in Würzburg. To this is added what might be drawn from an observation of the type of patients who appear on the wards of a large university hospital.

At the outset it is perhaps well to recognize certain fundamental differences between medical life in the United States and Germany aside from sickness insurance. In Germany there is no charity on a large scale such as we know it in America. There is giving of money for the care of the poor, to be sure, but it occurs on a small scale and the poor are not primarily dependent on the generosity of the rich. There are comparatively few people in Germany who could afford charity on a financial scale such as we know it in America. Related to this is the almost complete lack of endowments for institutions raised by private subscription. Hospitals are almost entirely owned by the State. Furthermore, they are entirely self-supporting or even have an income considerably greater than expenses in prosperous years. Occasionally there is a hospital, such as the large Julius Spital here in Würzburg, which is supported by the Church and the large industry pertaining thereto. Thus, without privately endowed hospitals or hospitals operated at the expense of the government and without large charitable donations the poor must in some other way be cared for in case of illness.

For fifty years or more it has been obligatory in Germany for all people with incomes below a certain fixed sum to contribute a portion of that income toward sickness insurance. Since its beginning, and particularly since the war, the insurance system has been greatly extended to include unemployment, workmen's compensation, etc., and a great variety of insurance companies have arisen. These companies are strictly controlled by the government and all operations are closely guarded by an elaborate system of law, much after the manner of our life insurance companies, I suppose. The insurance company is not owned by the State and is operated for the mutual benefit of its members. In addition to the obligatory sickness insurance there is voluntary insurance as well offered by other companies by regular payment of a fixed charge. The in-

*Dr. William A. Evans, Jr., is the son of Dr. William A. Evans, Detroit. He is at present studying with Dr. Graafe of Würzburg, Germany.

dividual who is insured has the choice of any physician whom he may wish to consult who is approved by his insurance company.

Concerning the extent of sickness insurance in Germany, in 1926, it was estimated that there were twenty million people with sickness insurance and that if families and other dependents were included probably two-thirds of the total population were cared for by some form of sickness insurance. Of the practicing physicians it has been said that about ninety per cent are involved in insurance practice. *Probably many others are awaiting the approval of some insurance company.* Fees are, of course, fixed by law. For this purpose there is a carefully itemized tariff list prescribing fees for office examinations, house calls, blood pressure measurements, blood counts, urine examinations, pelvic examinations, etc. These examinations are made according to the practitioner's discretion and for them he receives prompt payment from the insurance company. The fees at first glance seem extraordinarily small, ten kronen or about thirty cents in Czechoslovakia for an office visit. In Germany the corresponding fee is about two marks or fifty cents. It is to be rememebered, however, that for one thing fees are not strictly comparable with those in America and for another that the German physician is at least certain of his fee and that this can be greatly augmented by further office or house visits and by a number of blood pressure determinations and blood counts as may or may not be strictly indicated.

The success of the system of sickness insurance is admittedly largely dependent upon the good will, coöperation and integrity of physicians and patients concerned. The most elaboraate system of law and regulation can not produce justice when this is lacking. That it is frequently lacking on the part of physicians as well as patients is not to be denied. For some this gives rise to frequent expressions of indignation and agitation for change in the medical weeklies, while others accept the situation much as New York and Chicago accept the graft of political machinery as inevitable or at least as a choice of evils.

One of the most frequent questions asked by those driven to print is "What is disease?" When we realize the difficulties and possibilities involved in this question for the relatively small field of workmen's compensation in the United States, we begin to understand the hopelessness of the problem when applied to the whole field of medicine and surgery. To judge the working ability of one who is being paid while sick must ever be so elusive and difficult a problem as to defy all legal verbiage.

It is generally agreed that there are too many doctors in Germany for the population, although the ratio at the present time is not nearly so large as in the United States. An attempt has been made to control this by prolonging the period of hospital work before one is allowed to enter private practice. A movement is now on foot which would require a year of labor at low pay in behalf of the government before the student is allowed to even enter upon his medical studies with the hope of discouraging those who would be so easily discouraged by such a period and who would then enter some more promptly remunerative form of activity.

Some protection is offered the established practitioner by the limit which is placed on the number of approved physicians in a given area by each insurance company. However, the arrangement is not entirely satisfactory for frequent articles appear in the press pointing to the injustice of the Kassen Löwen. These Kassen Löwen, or perhaps, as we should say, the hogs of the insurance business, contrive, not by virtue of their professional ability but through undue influence with the insurance company, to secure more practice than they are entitled to or can adequately handle. It is proposed now to fix definitely either the income or the number of patients for each doctor to circumvent this evil. Apparently it is not uncommon that he multiplies his visits and examinations to a number that he would not consider if he were obtaining his fee directly from the patient. We have on the ward at the present time a man with comparatively mild and uncomplicated diabetes who for a number of weeks has been visited daily in his home by his physician for the purpose of receiving a small insulin injection. To correct gross evils of this kind, however, the insurance companies employ so-called Vertrauenaerzte or doctors who work in the interests of the insurance company and whose duty it is to investigate cases where the patient is receiving more professional care than may be properly indicated. Thus the practitioner works under the threat of being disapproved by insurance companies.

The extent and variety of therapeutic means which the physician may recommend is carefully defined and the drugs he prescribes must be from the approved list.

Not long after the war, in a letter to Graham Lusk, Max Rubner deplored the conditions of medical practice in Germany and stated that there were three times too many sick under the insurance system of practice. Though the actual figure is probably not quite so large, statistics do indicate that the number of persons seeking medical help is much larger than in countries where sickness insurance does not exist. Certainly this does not indicate an actual increase in morbidity. It is perhaps only human that one who pays insurance should feel he must at some time or other get some return for his money and so without entirely adequate pretext he consults a physician who may or may not recommend a week in bed at the expense of the unemployment as well as sickness insurance companies. Many doubtless welcome an easy practice of this sort while others, more conscientious, complain bitterly of seeing thirty or more people a day, none of whom are really sick. In 1928 and 1929 there was a great deal of this. The hospitals were more than filled to capacity with patients classed largely as psychoneurotic, and earned handsome sums for the State. Now, however, with the increasing number of unemployed a halt has been called and probably many who need hospital care are denied it. The hospitals are poorly occupied and are operated at a deficit. Furthermore, in the last year or two it has been required that each person seeking medicines or professional advice must obtain a receipt at a small fee. This has done much to curb the activities of the would-be invalids.

There is little doubt that an insurance system with its legal intricacies and opportunities for unfair exploitation and with the vast organization which is necessary for its control is more expensive for the community than a system in which the relations between the patient and practitioner are direct. One has only to observe the difficulties and expense involved in the case of injured workmen in the United States. Then is one hesitant about the advisability of extending a similar system to include all forms of medical practice. One German writer says of the system in his country, "Insurance dishonesty is widespread, extends even to self mutilation and infects everything that comes within its range. This will remain until the wings of the communistic angels begin to sprout between the shoulder blades." If this is true in a country with such solidarity as Germany has, how much more true would it be in some other countries where such solidarity does not obtain.

MEDICAL PARTICIPATION—THE ANSWER*

L. O. GEIB, M.D.†
Chairman Detroit Board of Health
DETROIT, MICHIGAN

Lay, as well as medical, periodicals have been filled of late with all kinds of prescriptions for the amelioration of the relationship between the medical profession and the public. Unwarranted abuse has been showered upon organized medicine and impractical plans have been proposed for the socialization of both preventive and curative practice.

In the meantime there has slowly evolved in Michigan, without any spectacular or fanfare propaganda, a plan of medical participation which involves replacing an important part of the health program in the hand of the family physician who becomes a co-operating unit and the foundation stone of a new structure in disease prevention which will contribute materially to the reduction of needless sickness and prevent premature death. At the same time this program involves a group plan, the group in this case being the Medical Society which initiates, controls and directs, through suitable committees, the progress of the enterprise. Every physician should become a practitioner of preventive as well as curative medicine and assume his logical rôle in providing ef-

*Medical participation in public health work was discussed at a meeting of the Committee on Preventive Medicine of the Michigan State Medical Society held in Detroit on Dec. 16, 1932. The Committee members present were: C. T. Ekelund, Pontiac; Roy Holmes, Muskegon; Stuart Pritchard, Battle Creek; J. J. O'Meara, Jackson; D. R. Keyport, Grayling; L. F. Foster, Bay City; F. B. Miner, Flint, and L. O. Geib (Chairman), Detroit. Guests included: J. M. Rohb, H. R. Carstens, A. S. Brunk, B. U. Estabrook, W. A. Evans, Wm. Burns and Henry F. Vaughan, of Detroit; C. A. Neafie of Pontiac and J. D. Bruce of Ann Arbor.

†Dr. Ledru O. Geib received his A.B. degree Macalester College, St. Paul, Minn., 1905; M.D., Detroit College of Medicine, 1912; post graduate courses at Michigan, Columbia and Harvard Universities. He was Associate Professor of Physiology, Detroit College of Medicine, 1912-1913; Chief of Out-Patient Department and Instructor in Physical Diagnosis, Medical Department of Lincoln Memorial University, Knoxville, Tenn., 1913-1914; Diagnostician, Detroit Board of Health, 1915-1926. He has been a member of Detroit Board of Health since 1929 and has been in general practice in Detroit since 1914.

ficient and adequate medical service to the community.

Material contributions have been made throughout the country during the past two decades to the reduction of death rates and the elimination of preventable diseases. It is relatively easy to show spectacular progress when we start with a high death rate and a high degree of public ignorance with respect to preventive medicine. As the mortality figures diminish it becomes increasingly more difficult to show large savings in human life. Success in the future will depend largely upon our ability to incorporate into the program the services of the family physician, who, after all, is the family counsellor in matters of health and sickness. If the growing child, the suspicious case of tuberculosis or the individual who is handicapped with physical defects or other departures from normal health is to be adequately served, we must have a medical profession which is thoroughly prepared to render modern health conservation services and we must have a public consciousness aroused to an appreciation of the value of the life-promoting facilities that science and the laboratory have made available.

By serving the well individual, the family physician is better prepared to render adequate service to the individual whose physical condition departs from the normal. More than 80 per cent of illness can be cared for by the family physician, who sees the patient in the early stages of illness, when steps must be taken to arrest disease in its incipiency. If we are to continue progress in the reduction of the tuberculosis death rate, there must be an earlier recognition of beginning symptoms. Three-fourths of the cases which now come to the attention of the average health department are moderately or far advanced. The average period of hospitalization for an advanced case is sixteen months, for an early case nine months. By finding the early case, the burdensome cost of hospitalization to the community could be cut in half. Even under the best hospital and sanitarium conditions, with adequate medical and surgical facilities, the life of the advanced case is prolonged but for a few years, while prompt treatment for the early case should result in complete recovery and the fulfillment of the normal life span. There is then no question but that the early diagnosis of tuberculosis would result in a reduction of cost to the community health service and would be a blessing to the patient. The most promising method of consummating a plan for early diagnosis is to prepare the family physician so that he will have the inclination, ability and tools with which to render a modern diagnostic service and at the same time to impress upon the public mind the need for a periodic health examination. An adequate examination for early tuberculosis involves an X-ray examination of the chest and if the physician is not equipped to render this service himself, he should seek the aid of the specialist and have the privilege of referring the indigent to a hospital or health department service.

The death rates from certain diseases of middle age and late life are increasing. If we are to prevent needless mortality in cancer, the family physician must be shown his responsibility, must be thoroughly conversant with the early symptoms of this disease and must appreciate the valuable help of the expert, the laboratory, the roentgenologist and the hospital so that he may fall back upon these diagnostic and treatment facilities when necessary.

If diphtheria is to be prevented, we must secure a high degree of protection for young children, especially those of preschool age and infants beyond the age of six months. If communities are to be kept free of smallpox, its people must be vaccinated. If we are to prevent the inroad of physical and mental handicaps, we must provide machinery for the periodic health examination.

During the past two years the principles of medical participation have been employed by the W. K. Kellogg Foundation in its health program in certain parts of southwestern Michigan, including Barry, Allegan, Kalamazoo and Calhoun Counties. While encouraging and supporting the development of well organized community health departments, this Foundation has used with increasing effectiveness the local practicing physicians and dentists in carrying on its program of health education, supervision of the children of school and preschool age and in creating facilities with which to control such diseases as tuberculosis, diphtheria and smallpox. The W. K. Kellogg Foundation has also been instrumental in stimulating interest in this plan in various parts of the United States. The

program has been described at the annual meetings of the American Medical Association and the American Public Health Association and has been received with unusual enthusiasm by a number of medical and public health societies. The W. K. Kellogg Foundation, whose interests are dedicated to the advancement of the health and welfare of all children, has adopted as one of its major projects the expansion of the influence of the family physician, feeling that by so doing it is best serving child health.

Some six years ago the Wayne County Medical Society, in coöperation with the Detroit Department of Health, embarked upon such a program of medical participation with the purpose that the family physician (who in this plan has become a cooperating physician) should perform certain services which in the past have been rendered largely by free clinics. From the very beginning it was planned to extend this program, insofar as possible, to medical services of a preventable character and it was hoped that the underlying principles would be equally applicable to curative medicine. Instead of starting a revolution it was wisely decided that the process would be one of evolution. Instead of closing all of the free clinics, the work was first limited to a diphtheria protection program and during the past four years there has been no free clinic in Detroit to which the child could be taken for prophylactic treatment. All of the work has been accomplished in the office of the cooperating physician. A recent city-wide survey indicates that over 77 per cent of the school children, 43 per cent of the preschool group and 25 per cent of infants between six and twelve months of age have received at least one series of the immunizing agent. Eleven hundred physicians have coöperated and in accordance with an agreement with the Medical Society and the Department of Health have either been paid by the parent or reimbursed by the Health Department for service to indigents. The diphtheria death rate in 1932 is but 60 per cent of that for the preceding year and but one-fifth of the average for the preceding five-year period. The program has served the public by reducing the amount of sickness and has served both the public and the Health Department by reducing the cost of the disease. The entire preventive program, including the sums paid to physicians, has in no year even approximated the previous cost to the community of treating those who suffered from diphtheria. During the past three years the physicians of this community have been deprived of an income of $60,000.00 due to the reduction in diphtheria mortality but at the same time they have been paid more than $300,000.00 for the protective service which they have rendered by the administration of toxin-antitoxin or toxoid. Thus it will be seen that preventive medicine has paid the physician five times his income from curative medicine for this one disease. There has been maintained that intimate and cordial relationship between the patient and physician. The success of such a program of medical participation depends: first, upon an alert medical profession which is willing to take the lead through its properly organized county society; secondly, the existence of a full-time public health service with well trained personnel including public health nurse-educators; thirdly, the coöperation of all existing health agencies, whether public or voluntary, and, fourthly, a stimulated and responsive public. It is essential that the physician should first be prepared to render the service. This can be accomplished by group control through the medical society and its committees, through a system of undergraduate and post-graduate instruction and through the employment of a medical coordinator who will visit those physicians who are wont never to attend any medical meeting. If the medical profession is not fully conversant with the plan, only failure will result. The second important step is to prepare the public. This may be accomplished through all the known means of popular health instruction, coupled with individual instruction to the parent through the medium of the public health nurse-educator.

So far as diphtheria protection is concerned, the Detroit Plan has been a marked success. The work is gradually being extended so as to include smallpox protection, tuberculosis case-finding, periodic health examinations, periodic dental examinations, the control and treatment of venereal diseases and the annual physical examination for food handlers. It is intended to extend this plan gradually to other phases of preventive and curative medicine. In the words of the Weekly Roster of the Philadelphia

County Medical Society: "The advantages of this plan are obvious. Free clinics are eliminated the status of the family physician is established, a large group being able to do more work than a small one, and the efficiency of the medical care is increased. More work is done in a shorter period. The cost is more equitably distributed. A more enduring relationship is developed and sustained between the profession, the public and the health department."

It is the hope of your committee that this type of service may be extended into other communities and that the physician will embrace in his practice many of the features of a preventive medical program which have formerly been available only through health department organization and clinics. The committee further believes that the principles involved in this program are applicable to a plan which will assure adequate medical care for a community.

It is urged: (1) that each county medical society study the plan of medical participation as it has been instituted in the southwestern part of Michigan by the W. K. Kellogg Foundation and in Detroit by the Wayne County Medical Society in cooperation with the Health Department; (2) that such steps as are necessary be taken to extend this type of service to other counties in Michigan and (3) that the county medical societies secure the coöperation of local public officials in providing community health service and appropriate funds to maintain a program which will utilize to the utmost the facilities and resources of the medical profession in providing adequate preventive and curative service to the public.

MICHIGAN DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

COMMUNICABLE DISEASES IN 1932

In spite of the fact that there was an increase of almost 40,000 cases of communicable disease reported in 1932, this year was the most remarkable year in many ways in the history of the state. The increase in the total number of cases reported was 39,604, of which 35,917 was due to measles alone, and 4,124 due to mumps. In other words, the increase in these two diseases more than offset the total increase in the number of cases reported.

Diphtheria in 1931 was considered phenomenal. There were 1,831 cases reported in 1931 as compared with 12,075 in the peak year of 1921, yet in 1932 this figure was reduced to 1,188, a decrease of about one-third from the 1931 figure. This is certainly remarkable in this state, which has always been noted for the high incidence of this disease. I may say, however, that this reduction in diphtheria has not been entirely peculiar to Michigan, as most of the states show some degree of decrease.

Scarlet fever on the other hand shows an increase from 13,023 cases in 1931 to 15,255 in 1932. This is a gain of approximately seventeen per cent.

Smallpox continues its downward course, there being only 222 cases reported in 1932 as compared with 915 in 1931, a decrease of 693.

Typhoid fever shows an increase of 89 cases, rising from 424 in 1931 to 513 in 1932. It is entirely probable that at least a percentage of this apparent increase is due to better reporting, as the department has been very keenly on the alert to discover cases. When the fatality rates are ready, in the course of another month, we will be better able to judge whether or not this increase is real, as the fatality rate is fairly constant in typhoid fever and may be used as a measure of the efficiency of reporting.

Whooping cough showed a considerable increase, rising from 11,448 cases in 1931 to 13,091 in 1932. This is an increase of approximately 14 per cent.

Measles, probably more than any other communicable disease, shows a definite and marked periodicity, and 1932 was certainly a high year. There were 42,129 cases reported, more than have ever been reported in any one year in the history of the state. This, as compared with 6,212 cases reported in 1931, an increase of 35,917 cases.

There were 4,904 cases of pneumonia reported, as compared with 4,661 in 1931, an increase of 243 cases. As this disease is very poorly reported except in times of peculiar stress, it is probable that these figures are not significant.

Meningitis showed a decrease from 293 cases in 1931 to 129 in 1932, a drop of 164 cases.

It will be recalled that the year 1931 was an epidemic year in poliomyelitis. There were 1,137 cases reported in 1931, whereas, in 1932 only 112 cases were reported.

Chickenpox rose from 11,531 cases in 1931 to 12,122 cases in 1932, an increase of 591 cases.

Mumps showed a decided rise, there being 9,403 cases reported in 1932 as against 5,279 in 1931, an increase of 4,124 cases.

Ankylostomiasis (Hookworm disease) is not common in Michigan, but there was one case reported in 1932; none in 1931.

Influenza is not reportable in Michigan except in times of epidemic and on orders of the State Commissioner of Health. There are always a few cases reported and in 1932 we had 1,417 cases, compared with 1,337 in 1931.

There were no cases of leprosy reported in Michigan during 1932. One case was reported in 1931.

Lethargic encephalitis showed a slight decrease, there being 47 cases reported, as against 52 in 1931.

It is interesting to review the history of malaria in Michigan. The older records show that it was very common a generation ago, and then for many years it practically disappeared. There were 44 cases reported in 1932 as compared with 13 in 1931. Investigation seems to indicate that a good many of these cases were imported.

There were 16 cases of paratyphoid fever reported in 1932 as compared with 9 in 1931.

Pellagra is by no means common in Michigan, but two cases were reported in 1932 as compared with one in 1931.

The recognition of psittacosis in this country is relatively new. Michigan had one case reported, which ended fatally, and it is interesting to note that a love bird, a member of the psittacine family, was responsible for this infection.

There were two cases of human rabies reported in 1932, the same number as in 1931.

There were 405 cases of septic sore throat reported in 1932 as compared with 325 in 1931, an increase of 80 cases. As the recognition of this disease and its differentiation from scarlet fever is not clearly cut, not too much reliance should be placed on these figures.

Spirochetal hemorrhagic jaundice was not reported in the state during 1932, although there were two cases reported in 1931.

There were ten cases of tetanus reported in 1932, as compared with twelve cases in 1931.

Trachoma showed reports of four cases for 1932 as compared with three in 1931.

Trichiniasis reported two cases in 1932 as compared with seven in 1931.

Tularemia is recognized as a relatively new disease in this state. There were 21 cases reported in 1932 as compared with six in 1931.

The recognition of undulant fever in Michigan is comparatively recent but reports were received for 45 cases in 1932 as compared with 19 in 1931.

Vincent's angina shows some increase for 1932. There were 209 cases reported in 1932 as contrasted with 168 in 1931.

There were 7,103 cases of tuberculosis in 1932, as compared with 6,132 in 1931. In view of the steadily falling fatality rate from this disease, it is probable that this increase is due to better reporting.

All forms of venereal disease showed a decreased number of reports in 1932 as compared with 1931. It is a question whether or not these figures are truly comparable as the change made relatively a few years ago of requiring reports only of communicable cases has tended to reduce the number of cases reported. There were reported 11,969 cases of syphilis in 1932 as compared with 14,662 in 1931. There were reported 6,963 cases of gonorrhea, as compared with 7,843 in 1931, and 140 cases of chancroid as compared with 170 in 1931.

Taken as a whole, I think we may say definitely that the number of cases of communicable disease reported in Michigan in 1932 indicates a very satisfactory condition. The increases are in scarlet fever, measles, mumps and whooping cough, diseases that we are not yet able to control. Those diseases that we do know how to control in a

satisfactory manner have all shown a satisfactory decrease.

W. J. V. D.

EATON COUNTY HEALTH DEPARTMENT

Eaton County is to have a full-time health department, made possible by a grant from the W. K. Kellogg Foundation. The director is Dr. J. W. Davis and headquarters are at Charlotte, the county seat.

The Eaton County Health Department will be the third county unit to be sponsored by the Kellogg Foundation, and it will bring up to thirty the number of Michigan counties having full-time health supervision.

EXERCISE AND GASTRIC DIGESTION

In Beaumont's classic "Experiments and Observations on the Gastric Juice and the Physiology of Digestion," published in 1833, he anticipated a question that is frequently being asked at the present time; namely, What is the effect of exercise on the gastric secretion of man? Is complete rest after meals desirable in the interest of food digestion? From his observations on Alexis St. Martin, the "man with the lid on his stomach," Beaumont drew the inference—one of the fifty-one inferences with which he concluded his essay—that "gentle exercise facilitates the digestion of food." Since that time the possible significance of another physiologic factor—the emotional state of the person—has come into notice. Today it is realized that anxiety, anger, fear and sorrow may either stimulate or inhibit physiologic processes. The views on this subject in relation to the gastric functions have by no means been uniform. As early as 1846, Combe expressed the dual belief that "rest of body and tranquillity of mind for a short time, both before and after eating, are necessary and conducive to healthy digestion."

The possibility of direct experimentation on man awaited the introduction of the gastric tube, by which test samples of the stomach contents after meals could be removed for comparative analysis; for persons with a gastric fistula such as Beaumont's patient possessed are rarities. The latest investigators in this field, working at the University of Wisconsin, recall that in 1928 Campbell, Mitchell and Powell in England studied a series of normal young men who ate, before exercises, a test meal of bread, meat and potatoes, or a modification of the Boas meal of oatmeal gruel. The severity of the exercise to which these young men were subjected was roughly measured and consisted usually of running round the laboratory, the distance varying from one to four miles. They concluded that such exercise delayed digestion but that lighter exercise, walking, had no inhibitory influence on gastric secretion.

According to the observations of Hellebrandt and Miles, gentle exercise before or after a test meal augments gastric acidity. Protracted exercise is not necessarily depressing; but exhaustive muscular exertion, whether it precedes or follows a test meal, is associated with a diminution of the acidity of the gastric secretion to a level below resting normal, and the decrease is greatest when the exercise is accompanied by emotional excitement. In explanation of some of these manifestations the Wisconsin investigators point out that during muscular exercise, especially when violent and carried on at high speed, lactic acid is rapidly produced, accumulates in the blood, lowers the bicarbonate content and accelerates the output of carbon dioxide. The lungs are unable to wash out the carbonic acid rapidly enough and the hydrogen ion concentration rises. In the light of these experimental observations, they add, the diminution in gastric acidity during violent exercise may be due to the concomitant fall in plasma bicarbonate. In accord with this hypothesis, hypoacidity was observed to appear only when the muscular exertion was associated with evidences of the incurrence of an oxygen debt; and the greatest diminution in gastric acidity occurred when the exercise was severe and exhausting. The physicochemical changes in the blood, they conclude, must therefore be taken into consideration in the determination of the cause of the exercise gastric hypoacidity. Furthermore, as Hellebrandt and Miles point out, if the muscular exercise is severe and generalized, splanchnic vasoconstriction diverts blood away from the visceral area to the active skeletal muscles and skin, producing a relative diminution in the oxygen supply to the stomach. This may contribute to the production of the gastric hypo-acidity associated with exhaustive muscular exertion. It may well be, as Hellebrandt and Miles suspect, that moderate muscular exertion heightens the general metabolism, improves the circulation and has a stimulating effect on the organism as a whole, thus augmenting functional activity.—*Journal A. M. A.*

ACCIDENTAL INJURIES IN OFFICE PRACTICE

Richard Kovacs, New York, analyzes the accidents due to the use of therapeutics apparatus in the practice of physical therapy, exclusive of X-rays, and presents the principles the observance of which (1) will prove reasonable knowledge and skill on the part of both general practitioner and specialist and (2) will tend to keep accidental injuries at a minimum. The causes that lead to the occurrence of accidental injuries are: (1) the equation of the operator—improper technic or inattention; (2) the equation of the patient—unusual sensitiveness (or idiosyncrasy, which is particularly true in regard to roentgen rays), lack of coöperation or contributory negligence; (3) the equation of apparatus and accessories—faulty construction or mechanical breakdown. Accidental injuries in the course of office treatment by physical measures are: 1. Electrical shock, due to the sudden powerful influence of an electric current on the entire body; this may be due to *(a)* accidental contact with a grounded object (water pipe, radiator, electrical socket) while receiving an electric current from an apparatus or while receiving a galvanic bath; *(b)* breakdown between the primary and secondary side of a high tension transformer and lack of sufficient safeguards (magnetic cutout) to prevent the jumping over of the dangerous high tension low frequency current to the patient. 2. Burns of varying kind, due either to excessive current density or to excessive heat or ultraviolet radiation over part of the body. Inflammation of the eyes has occurred through neglect of protecting the eyes against ultraviolet rays. 3. Mechanical injuries, tearing of the skin or rupture of internal organs, due to a blow from an improperly supported piece of apparatus or to excessive action of the apparatus itself, as has happened with some mechanical exercisers. The author concludes that the general practitioner and the specialist alike must be acceptably trained and be ever watchful to administer treatments within a large margin of safety so that, whatever accident may occur from time to time, it will belong among the really unavoidable ones.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
641 David Whitney Bldg., Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 641 David Whitney Bldg., Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

MARCH, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

POST GRADUATE OPPORTUNITIES

Arrangements are practically complete for the Annual Post Graduate work given by the Department of Post Graduate Medicine of the University of Michigan and the Michigan State Medical Society on Medicine and Surgery and Allied Specialties. Courses already announced, concerning which details may be obtained by addressing the Department of Post Graduate Medicine, Ann Arbor, are as follows: Diseases of Metabolism, March 27-31; Pulmonary Tuberculosis, March 20-24; Diseases of the Heart and Circulatory System, April 3-7; Ophthalmology and Otolaryngology, April 24-29. These courses will be given at the University Hospital at Ann Arbor.

The following will be given at the Receiving Hospital, Detroit: Proctology, May 15-27; Gynecology, Obstetrics and Gynecological Pathology, June 19 to July 1. The Fifth Annual Practitioners Course, June 19 to July 1.

The fees for the courses of post graduate study have been lowered to conform with the financial situation with which the profession of the state is confronted.

The short intensive course of study has met with a satisfactory response on the part of the medical profession. After years in practice, physicians have well defined ideas regarding their difficulties and limitations. These graduate courses afford an opportunity for help through discussion. During periods of prosperity many found it possible to get away perhaps farther from home and for longer periods of time. The distant fields that looked so green have been brought to our doors, so that opportunities for intensive study are ours at a fraction of the expense. The character of the courses offered conjointly by the University Department of Post Graduate Medicine is so well known that no more than an announcement of the particular courses with their dates is necessary. However, in former years some of the courses received a greater number of applicants than could be accommodated.

"THE FISTULOUS ALEXIS"

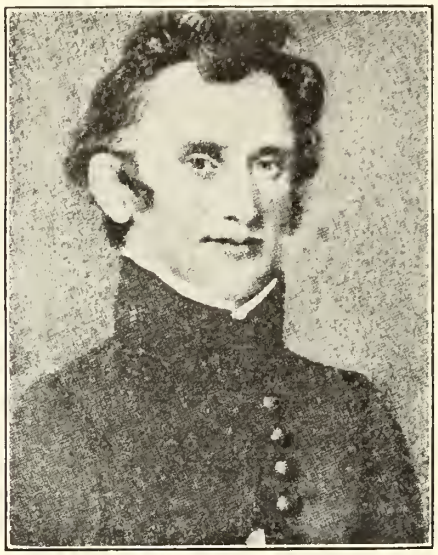
One of the greatest, if not the chief, events of the year in medical circles in Wayne County was the 1933 series of Beaumont lectures given before a crowded house on January 30th and 31st. The lecturer was Dr. W. B. Cannon, professor of physiology, Harvard University Medical School. The lectures this year constituted a commemoration of the one hundredth anniversary of the publication of Beaumont's classic work, Experiments and Observations on the Gastric Juice and the Physiology of Digestion.

The first lecture given under the auspices of the Beaumont Foundation was by Professor Macallum of Johns Hopkins in 1922. It has been followed by a series of lectures

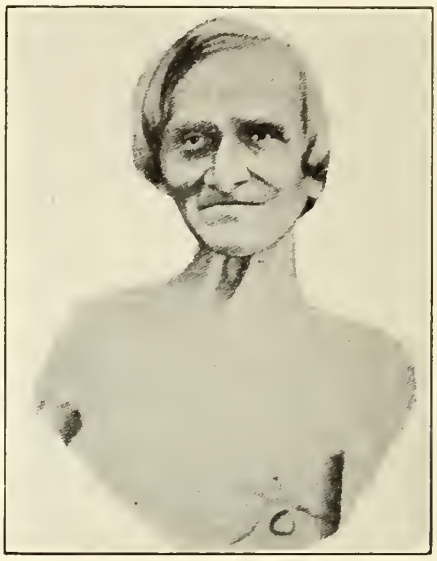
each year by some outstanding research worker in the United States and Canada.

These lectures have been made available during the past and present year to the entire membership of the Michigan State Medical Society, through the medium of this Journal. The first lecture by Professor Cannon appears in this number, and the second and third lectures will be printed in the April and May numbers respectively.

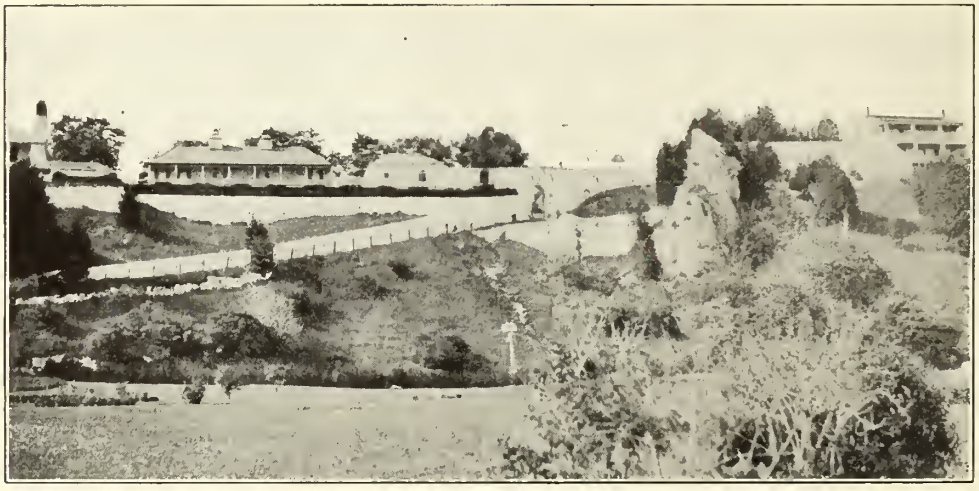
Apropos of the one hundredth anniversary of the publication of Beaumont's book, attention is here called to a very scholarly biographical paper in the Annals of Medical History for January, 1933. The author is William Snow Miller, M.D., Sc.D., of Madison, Wisconsin. The paper is a lecture which was delivered by the author before the Beaumont Club of the Yale Medical School.



William Beaumont



Alexis St. Martin
(Note gastric fistula)



Fort Mackinac

"Come with me for a few moments on a lovely June day in 1822, to what were then far off northern wilds, to the Island of Mackinac where the waters of Lake Michigan and Lake Huron unite and where stands Fort Mackinac rich in the memories of Indian and voyageur, one of the four important posts on the upper lakes in the days when the rose and the fleur-de-lys strove for the mastery of the western world."—Sir William Osler. (Photo by J. H. Dempster from The Medical History of Michigan.)

Everyone is familiar with the fortuitous accident which befell Alexis St. Martin, a

French Canadian voyageur on Mackinac Island, giving William Beaumont, the army surgeon, the opportunity which brought fame to both patient and doctor. Professor Cannon, as will be seen, made frequent reference to the epoch-making work of the pioneer backwoods physiologist, comparing the findings with the most recent results of physiologic research. The greatness of the pioneer may be appreciated when it is realized that he did his work alone, almost in solitude, without the encouragement of coworkers, without apparatus or with equipment of the most meagre kind, without financial aid and often with the opposition of those who failed to appreciate the importance of the work in hand. Such an environment was Beaumont's, his only instrument a thermometer, some litmus paper, or its substitute, perhaps, and the fistulous Alexis as his experimental animal.

Professor Cannon has a faculty, unfortunately too rare among scientific workers, of presenting his subject in a clear and interesting manner. He is a master of literary style which has been apparent to all who are familiar with his writings and with his early work, The Mechanical Factors of Digestion, to his recently published book, The Wisdom of the Body.

Beaumont's Monument

This monument was erected in 1900 by the Michigan State Medical Society in honor of the labors of William Beaumont. It is located on the hill on which Fort Mackinac is situated. Though carved in granite, the inscription had become so much effaced by the rigors of the northern winters that the stone was faced with a bronze tablet a quarter of a century later, during the annual meeting of the Michigan State Medical Society at Mackinac. The inscription on the tablet is: "Near this spot Dr. William Beaumont, United States Army, made those experiments upon Alexis St. Martin which brought fame to himself and honor to American Medicine." (Photo by J. H. Dempster, which first appeared in the History of Medicine in Michigan.)

X-RAY AND THE DEPRESSION

During the early years of the development of the science of roentgenology, apparatus compared with that of today, was very crude and more skill in proportion was necessary to produce diagnostic plates. The early X-ray worker developed into more or less of an artist. With improvement in the manufacture of X-ray apparatus and the invention of the Coolidge tube the matter of making radiograms was reduced to a mastering of a more or less hard and fast tech-

nic. The operator of modern X-ray equipment can be taught in a week to make excellent radiographs. He has to learn only the necessary manipulations of the keyboard of the control stand, development technic, how to place his patient, and the result is a radiograph equal to the very best made by the expert roentgenologist of thirty years ago. With the good times following the war X-ray apparatus was perfected, and, with a simplified technic, was placed into a great many doctors' offices where no attempt was made to specialize nor to give roentgenography any major consideration. Less emphasis was given to the diagnostic side of X-ray. If not in so many words, the feeling was left with the buyer that once the *modus operandi* of the machine were mastered, the main difficulty had been surmounted. As a prominent roentgenologist once said "the prosperity period has placed more roentgenographic apparatus in hospitals and offices than the profession can assimilate and use intelligently." Waters,* Associate Professor of Roentgenology, Johns Hopkins University, comments "that the distribution of X-ray apparatus far exceeds the distribution of the knowledge of roentgenographic interpretation." "The value of the X-ray examination," Waters contends, "depends entirely upon the amount of interpretative knowledge that is brought to bear upon the shadows."

A display of costly X-ray apparatus is impressive to patients. How often does the roentgenologist hear from the patient the exclamation, "wonderful"! The writer recalls an instance in which a patient used the word in the presence of her physician as expressing her reaction towards the X-ray apparatus. "No," was his reply, "there is nothing wonderful about the making of a radiograph, if there is anything wonderful it is in the interpretation." Roentgenology is a specialty that concerns almost every branch of medicine or surgery in all conditions in which the pathology registers itself in increased or decreased density of the part under consideration. We recall the definition of a radiograph taught by the late Dr. P. M. Hickey years ago. "A radiograph is a record of density." Dr. Hickey objected to the term "X-ray picture," as being wholly misleading. A radiographic examination is really a biopsy without the agony of the scalpel.

Now that the impecunious roentgenologist or physician is not in a position to jettison his equipment and buy new, he can increase his diagnostic ability by making the best use of the apparatus he has.

*See 1932 Year Book on Roentgenology reviewed elsewhere in this Number of the Journal.

WHAT IS SOCIALISM?

The answer is not without interest at the present time considering the activities of the state in various directions including the proposition of the committee on the cost of medical care which in effect would socialize medicine. Apart from the chimeric nature of much of the so-called historic socialism, the first modern English socialist was Thomas Spence, born in 1750, not a long time ago as history goes. The founding of modern socialism, however, is ascribed to a Welshman, Robert Owen (1771-1858). Owen was manager and later a joint proprietor of one of the largest cotton manufacturing establishments in England. He conducted his operations more as philanthropic capitalist than socialist. His socialism dated from 1817, a period that was marked by general misery and commercial stagnation following the battle of Waterloo. Owen claimed that the condition of the times was due to competition of human labor with machinery (a circumstance somewhat analogous to the present), and the proposed remedy was the subordination of machinery. Then, following Owen, we have a lineage of names more or less familiar which in a way points to the country in which socialistic trends have been manifest; such names as, Kingsley (Christiam Socialism), Saint Simon, Fourier (French Socialism), Karl Marx, Lassalle (German Socialism), Bakunin (Russia).

Socialism in its broad sense has been largely confined to the laboring classes. Here and there, however, it has included intellectuals, perhaps more so in the United States during the last presidential election than at any other time, though some of the names associated with European socialism have been of men of high intellectual attainments. Its development has been greatest in European countries and yet there it has been one of degree only. There has never been a completely socialistic state. The

socialistic movement is in process of making, and at that only in a very early stage.

Modern socialism is divided roughly into three phases. The first is the theoretic-Utopian stage of Owen and of the earlier French socialists; the second stage is that of revolutionary socialism, the exponents of which were Marx and Engels as its scientists, and Lenin, Trotsky, Stalin as its greatest practical exponents. The third stage might be called constitutional socialism identified with such names as Lassalle, the first organizer, and Ramsay MacDonald and Sidney Webb long identified with the Fabian society, a group of socialists not in a hurry to witness the fruition of their political theories. Constitutional socialism during the past thirty years has made rather marked advances in Australia, Austria, Belgium, Great Britain, France, Germany and a number of other countries in which socialist parties have acquired rather formidable influence.

Socialism has never acquired any great popularity in the United States. Beyond a few experimental colonies in the 1830's, we do not hear much of the movement until after the wave of German immigration which followed the failure of the 1848 revolution in Europe. A socialist newspaper, The Republic of Workers, was founded in 1858, but was short lived. The typical American seemed to have very little sympathy for the political exiles from Europe. With the exceptions of depressions, somewhat cyclic in nature, wages have been for the most part higher here, than those which prevailed abroad, so that during the past century comparative contentment was inimical to the spread of any political or social system which meant a levelling down. The typical American always felt that though his circumstances may not be what he would desire, the possibilities of acquiring a measure of wealth were never wholly denied him.

Probably as good a definition of socialism* as any is, a system a government where the ownership and management of land, capital and public services are placed under public or social control instead of in the hands of individual capitalists or joint stock companies, "with neither a body to be kicked or a soul to be damned."

*From A History of Socialism by Markham.

Civic control of such public service as water, street lighting and street railway are in a way socialistic. The operation of steam railways in Canada is designated by a special name, collectivism. State control of medicine would be socialism to that extent prevailing under a capitalist system.

At the recent presidential election the socialist candidate for president received the lowest socialistic vote in proportion to the number cast, of any socialist candidate in the last thirty-two years. Considering the fact as already mentioned that socialism is at the very early stage of its development anywhere, we would hesitate as a citizen to see it applied in any broad way to such an important service as medicine. As a physician it would seem like gambling with one's professional career with a possibility of the dice being loaded against one.

"DIED FOLLOWING OPERATION"

This phrase which has appeared with certain modifications from time to time in the daily press has been a source of irritation to a great many of our surgical friends. And rightly so, since the implication has been that the operation killed the patient who would otherwise have lived long and happily. The following is from the versatile and facetious pen of a friend of the medical profession, Malcolm Bingay, editor of the Detroit Free Press. Mr. Bingay has more than made amends, so far as he is able to control the situation editorially.

"A medical friend of mine called my attention to a grave mistake very frequently made in all newspaper offices. (No pun intended on 'grave mistake'). Very often the thoughtless reporter or copy reader will say that somebody 'died from an operation.' It is part of the colloquial speech of people in all walks of life—outside the medical.

"To say that a person 'died from an operation,' is to imply one of two things: either the doctor was guilty of malpractice or murder. People die while undergoing an operation in an attempt to save their lives. That is the kindlier and more accurate way of saying it.

"No doctor or surgeon of any intelligence or standing in his profession suggests an operation—major—unless he feels that it must be performed either to save the life or make life bearable to the patient. Contrary to the cynically uninformed, surgeons are not sadists; they find no joy in cutting. They perform miracles of mercy and when, in a battle against Death, the old Grin Reaper happens to win, it is unfair and lacking in sportsmanship to say or write that the patient 'died from an operation.'"

DIGITALIS AND HEART DISEASE

In a short article* Dr. Christian has given an admirable review of the pharmacology of digitalis, and some interesting suggestions as to the use of the drug in other conditions than cardiac decompensation with or without an associated auricular fibrillation.

The active principles of digitalis are glucosides which are absorbed and fixed in the heart muscle and then split into a form that has a digitalis action, and an inert sugar. This splitting is gradual and is associated with a diminishing amount of available active digitalis substance over a long period of time. This feature of the pharmacological action of the drug indicates the need of subsequent doses at proper intervals to maintain the digitalis action in patients over days or weeks. Should the doses follow each other at too short intervals, the amount of digitalis fixed in the heart muscle will increase until a toxic level is reached, giving the so-called cumulative effect of digitalis.

The amount of digitalis fixed by any heart depends on several factors, most important of which are the concentration of the drug in the coronary circulation and the cardiac cavities, the rate of flow, and the mass of heart muscle. These observations explain certain well known clinical facts.

Digitalis given to a patient with a normal heart has much less effect than when the same amount is given to a decompensated patient. In the latter case the coronary as well as the peripheral circulation is definitely slowed and the emptying of the coronary vessels is retarded, prolonging the time of contact between the digitalis in the circulation and the heart muscle. Thus more digitalis is fixed and a greater digitalis effect is obtained from a given dose of digitalis in decompensation than when compensation is regained, ventricular contraction more vigorous, and the rate of flow more rapid.

In the hypertrophied heart with greater muscle mass, concentration and time of flow remaining the same, more digitalis will be fixed than by the heart of normal size, giving us proportionately more effect from a given dose of digitalis in the enlarged heart.

At this point the author speculates on the use of digitalis in middle aged or elderly people with beginning hypertrophy or in whom enlargement can be predicted due to the presence of hypertension or valvular lesion. Hypertrophy in itself he believes to be an undesirable process. Cloetta's experiments on animals with experimental aortic insufficiency showed that those receiving digitalis developed less hypertrophy than those receiving none. This work suggests that digitalis may retard cardiac hypertrophy. On this basis, Christian recommends the daily use of digitalis especially in older people where there is hypertrophy even though no symptoms are present. This may be continued during the remainder of the patient's life.

Once decompensation has developed, best results are obtained from a daily digitalis ration maintained continuously thereafter.

The dosage of digitalis varies little regardless of the method of injection. If the intravenous route is chosen the digitalis passes through the lungs, which fix no digitalis, directly to the heart. If digitalis is given by mouth or rectally, it is absorbed and passes into the portal circulation on its way to the heart. Much of the drug is fixed by the liver, reducing the amount that reaches the heart, suggesting that the dosage should be greater if given by mouth or rectum. However, when digitalis is given by the latter methods, due to prolonged absorption time, it remains in the circulation a much longer time, and this factor compensates for the amount absorbed by the liver. Thus there needs to be no great difference in dosage regardless of the method of administration.

Dr. Christian concludes with the statement that for mouth dosage no digitalis preparation is better than pills of powdered leaves, judged either on the basis of clinical experience or pharmacologic investigation.

*The Pharmacology of Digitalis in Relation to the Therapy of Heart Disease. Henry A. Christian, M.D. The New England Journal of Medicine, Jan. 12, 1933, Volume 208, No. 2, p. 66.

COMMON DISEASES

"Scottish medicine had a nomenclature of its own for the commoner diseases. This is well exemplified in the description, given by a school girl, of the diseases from which she had already suffered, as mentioned by Dean Ramsay in illustration of Scottish expressions. He says:

"'In 1775, Mrs. Betty Muirhead kept a boarding-school for young ladies in the Trongate of Glasgow, near the Tron steeple. A girl on her arrival was asked whether she had had smallpox. She answered, "Yes, mem, I've had the sma-pox, the nirls (measles),

the blabs (nettle-rash), the scaw (itch), the kinkhoast (whooping cough), and the fever, the branks (mumps), and the worm (toothache)."'"

—From *History of Scottish Medicine,*
by John D. Comrie, M.A., B.Sc., M.D.

THE POWER TO TAX IS THE POWER TO DESTROY

(Saturday Evening Post)

"It would be less of a shock to have our pockets picked by an expert than to be held up at the point of a gun, but the end result would not be very different. However unpleasant pain may be, it has its uses. It is the one danger signal all living things will heed. Some of the most malignant diseases have a painless onset and the victim has no warning until it is too late for him to hope for more than a fighting chance. So with much taxation, that piles up softly and silently, like snow in the night. We laugh at it because we assume that it is borne by those who can better afford it than ourselves. We are slow to think the matter through and to discover that these levies are passed on to us in higher rents, dearer food, clothing, transportation and other living costs.

"If some white-rabbit breeder in Congress should propose that all existing taxes be abolished and that in place of them, each and all of us should work for the government two days out of every week, or turn over one-third of our incomes for the use of government, even his most radical colleagues would tap their temples and telephone for a specialist in mental disorders. Such heavy taxation in a nation not at war is almost unthinkable; and yet, if we are to believe one of our leading bank presidents, 'Today, government, in the form of taxes, will take, it is estimated, in excess of one-third of the national income, or financial lifeblood of the people.' If we had more courage and wisdom, we should make all our taxes as direct and as painful as possible, for no other course would serve so quickly to abate them."

WIND

Noo, th' wind blaws east an' th' wind blaws west,
Bit th' wind frae th' sooth is th' wind wha's best,
An' th' wind wha blaws frae th' north o' th' toon,
Is th' wind we'd raither no stay aroon'.

We hae wind wha is saft an' wind wha is cauld,
An' wind wha sweeps aff th' hat frae th' bald,
An' wind wha gaithers th' leaves in oor yard,
An' th' wind wha brings rain is doon on th' card.

Th' March wind isna a wind that can boast
O' mony guid freens aroon oor auld coast,
Bit th' wind wha blaws warm in April's mid-day
Is th' wind we'd rather gi's a lang stay.

Weel, March is a month that is naturally tough,
Th' wind may blaw rain or th' wind may blaw rough,
Bit April an' May is noo verra near
An' th' wind blaws warm when springtime is here.

Weel, guid nicht tae ye a',

Weelum.

Great changes are not caused by ideas alone; but they are not effected without ideas. The passions of men must be aroused if the frost of custom is to be broken or the chains of authority burst; but passion of itself is blind and its world is chaotic. To be effective men must act together, and to act together they must have a common understanding and a common object. When it comes to be a question of any far-reaching change, they must not merely conceive their own immediate end with clearness. They must convert others, they must communicate sympathy and win over the unconvinced. Upon the whole, they must show that their object is possible, that is is compatible with existing institutions, or at any rate with some workable form of social life.—From Liberalism by L. T. Hobhouse.

MA BACK YARD POOL

We built a wee bit back yard pool,
Aneath th' trees where 'twould be cool,
We filled it fu' o' lilies white,
That fold their wings when it is nicht.

Oor freens pit tadpoles in oor pond,
An' gold fish too (o' which a'm fond),
An' tadpoles grew, mosquitoes too,
An' bugs an' flies made much ado.

Bit tadpoles intil frogs did grow,
An' every rain increased th' floe
Till noo, we're feedin' verra weel.
On auld frogs legs, fried wi' oatmeal.

Guid nicht,

Weelum.

TEA-DRINKERS

(Manchester Guardian)

In this country (England) life without tea would be unthinkable—an obvious enough reflection which is renewed by references to our eminence as tea-drinkers in a pamphlet on "Plantation Crops" which is issued by the Empire Marketing Board. As importers of tea we are supreme among the nations of the world; we now consume annually between nine and ten pounds of tea per head of population as compared with six and one-half pounds about twenty years ago. The United States is also a large importer of tea, but only because it represents a large population; the consumption per head is far below ours. The new pamphlet shows that the United Kingdom drinks six times as much tea as it drinks coffee, while the United States drinks sixteen times as much coffee as tea. It would be folly to argue that the English drink tea because they know how to make it and spurn coffee because (as critics from other countries often assert) they only succeed in spoiling it. That would be to put the cart before the horse, for if the English wanted to drink coffee they would soon learn how to prepare it acceptably. As a matter of fact they do drink coffee extensively, as is shown by the quoted figures of one cup of coffee to six of tea. If we bear in mind the amount of tea which is drunk, that indicates a considerable consumption of the other beverage, and it may be observed that the old legend that we do not know how to make good coffee is really a fable which belongs to the past. It is probably true, however, that coffee makes its headway among the middle and upper classes. The manual workers are still faithful to their Indian tea, served hot, strong, and highly sweetened. It may not be a delicate potation but it is undeniably popular and serves for morning, noon, and night.

OBITUARY

DR. H. M. GALE

Dr. H. M. Gale died at his home in Bay City of angina pectoris after a medical career of half a century. He was born in Ontario on November 1, 1855. After a preliminary education in the schools of his native Province he attended McGill University, where he studied under the late Sir William Osler. After graduating from McGill he began practice in Bad Axe, but moved to Bay City in 1885. Dr. Gale was a member of the Bay County Medical Society, the Michigan State Medical Society and the American Medical Association. He is survived by his widow; a son, Dr. E. M. Gale, of Shanghai, China; an adopted daughter, Mrs. James P. Carney, of Portland, Oregon; and three brothers, Dr. James Gale, of Bath, England, John Gale, of Washington, and the Reverend Robert Gale, of Bayfield, Ontario.

COMMUNICATIONS

Feb. 10, 1933

Dear Doctor Dempster:

I noted in Comments column: "It is reported that there is a good opening at Ontonagon for a general practitioner." I do not know who furnished the information, but it was some one who knew nothing of the facts. We are a very poor county with a rapidly decreasing population and tax roll, and are, like a good many others, trying to get by for the present. If there was an opening here we would have filled it from the ranks of our County Society.

I trust, Doctor, that you will believe that I am prompted by no selfish motive in writing this.

Yours very truly,

E. J. Evans, *Secretary*,
Ontonagon County Medical Society.

IODISM

J. O. Firth, Chicago, believes that at present iodine intoxication is limited mainly to attempts at suicide or to accidental causes. The introduction of solutions and compounds containing large percentages of iodine are used extensively in therapeutics or as opaque substances for radiography of cerebral and spinal spaces, genito-urinary organs, uterus and tubes, sinuses and bronchi. Such preparations are potential sources of iodism. Idiosyncrasy to iodine and inevitable errors and accidents of technic may lead to an increasing frequency of these conditions unless the dangers are realized and measures for prevention and treatment are instituted. Severe skin eruptions with varying degrees of catarrhal involvement, mostly in the respiratory tract, or severe gastro-intestinal disturbances or both seem to be the most commonly reported symptoms of iodism. The author suggests that when using chloriodized peanut oil as a therapeutic measure the following precautions should be followed: The patient should be instructed that none of the sputum should be swallowed during the procedure, nor afterward as long as the taste or smell of the oil is recognized. Films should be developed at once and if there is any considerable quantity of the iodized oil in the stomach it should be removed immediately by gastric lavage or induced vomiting and followed by a saline cathartic, and fluids by mouth should be pushed.—*Journal A. M. A.*

MEDICAL ECONOMICS

THE BATTLE CREEK PLAN FOR MEDICAL CARE OF THE INDIGENT. THE ACADEMY OF MEDICINE AND DENTISTRY

For more years than we like to remember the subject of the care of the indigent has been a bone of contention between the doctors and county poor commissioners and other relief agencies. Since the state or the next government unit, the county, city or township, is responsible by law for medical care as well as material relief for its indigent citizens, the problem of furnishing adequate medical service should offer no serious difficulty providing there is willingness on the part of both parties to get together on a humanitarian basis and in the spirit of coöperation. Without the benefit of a well worked out plan or system, medical relief often becomes the pawn of those political departments of government assigned to relief work. These agencies could not be expected to impartially rotate the service among all the doctors, although, as tax-paying citizens, they contribute their share of public funds for relief purposes.

The age old traditions and ethics of the medical profession are not easily adaptable to any sort of bargaining. Only in the case of sickness among those unable to pay, will doctors consider the subject of contract practice. During last year, 1932, in Calhoun County with a population of 85,000, the plan of hiring a full time physician to care for the indigent cases was tried out and the medical care of county cases was turned over to a doctor imported for that purpose. On account of the volume of work, no matter how well trained the doctor, it would be impossible for him to fulfill all the requirements and demands made upon him to cover all the specialties of the present day practice.

It was soon discovered that he could not, in addition to being an internist, fill the shoes of surgeon, an orthopedist, an obstetrician, a pediatrician, an eye, ear, nose and throat specialist, etc. As a result, the economy of hiring a one man county doctor did not meet expectations, for the county had also to pay for help from various specialists employed to meet the needs of the occasion. The total cost of furnishing care to the worthy indigents was, in the aggregate, just as much as it had been in other years. With a strange doctor, many of the poor people refused to submit themselves to his care largely through lack of confidence. They wanted their own doctor and in many cases got him and received the usual care at his hands, but with no hope of rendering pay to him for his service.

THE UNIT SYSTEM

Under the old system each county acted through its supervisors and its poor commissioners as the relief agency to furnish material relief and medical care to the indigent residents of the county. With the passage of the new law the indigent relief has become a problem for each city and township. Confronted with this situation the city of Battle Creek was open to suggestions as to the most effective method of caring for the indigent sick.

Accordingly a meeting of Battle Creek physicians and dentists was called, November 10, 1932, which resulted in the formation of the Battle Creek Academy of Medicine and Dentistry, a non-profit non-dividend corporation. Their first undertaking was to obtain the facts as to the number of cases

treated in other years, and the aggregate costs to the county for their medical care. These figures, through the free coöperation of county officials, were made available, and were taken as a basis for an estimate for future service. Based upon these findings, a contract was made with the city to furnish medical care, with ordinary medicine and including surgery to the indigent sick in Battle Creek for the year 1933, for the sum of $12,000, payable in semi-monthly installments of $500.

The next vital question to settle was the problem of determining the economic status and worthiness of the family requiring attention.

SOCIAL WORKER

The Academy of Medicine and Dentistry has its own investigating committee, who with an experienced social worker and former county nurse, whom they employ at their own expense, together with the city appointed Director of Relief, serve the interests of both doctors and the city by investigating the worthiness of each case. The plan of action is carried out as follows:

Each member of the Academy who has an office or house call from a family or individual who appears to be unable to pay for service, or who already is receiving fuel, food or rent from the city, would at once render first aid with no question as to forthcoming pay. He at once makes his report on a special notification card, to the Academy headquarters, and the visiting nurse, together with the relief director employed by the city, investigate and, if found worthy, the doctor continues to give medical care until the case recovers. If unworthy, the doctor would treat the case as any other private patient. At the end of the month he sends an itemized statement to the Auditing Committee of the Academy. This bill for service is rendered at the usual prices for such service in this city. The Auditing Committee discounts the bill 50 per cent, and then at once pays the doctor half of the discounted bill, or 25 per cent of the original bill. The rest of the account remains unpaid until the end of the year, when any remaining funds available would be pro-rated up to the amount of the unpaid balance of each doctor's bill. The expense of hospitalization, special orthopedic appliances, insulin, vaccines and a few other specials are not included in this plan, but are specially provided for by the city.

The Battle Creek Academy of Medicine and Dentistry is an incorporated body with its own officers and is prepared to function as a relief agency in this time of stress and stringency. It is strictly a non-profit medical service, sponsored by the members of the Calhoun County Medical Society and Dentistry, and is offered, with definite limitations, to the indigent residents of Battle Creek and certain environs. While sponsored by the members of the Medical and Dental Societies, its terms are binding only upon those of its members in active practice who subscribe to its operation.

AIMS

The Academy of Medicine and Dental service is devised to fulfill definite objectives and ideals; among them are the following:

1. To preserve to the private practice of medicine and dentistry its individualism, its incentive to scientific excellence, its reward for that excellence: the free choice of doctor or dentist to remain with the patient, and to see that the emoluments for service are equitably distributed.
2. To provide the sick poor in the present emergency with the same quality of service and tender care as can be had upon the usual fee-for-service basis.
3. To encourage the free use of consultation service in special or obscure cases.
4. To return the practice of medicine and dentistry to the local doctors and dentists where it rightfully belongs.
5. To forestall or replace various systems of medical care established for profit through lay or contract practice.
6. To provide a means whereby temporarily financially embarrassed sick people may call upon their own family doctor without being humiliated.
7. To promote disease prevention by the process of public education, and by the exchange of ideas upon the latest scientific methods of treatment.
8. To restore the confidence of the patient in the high ideals and purposes of organized medicine.
9. To endeavor to prevent financial embarrassment of large numbers of citizens from developing in chronic pauperism.

The Academy of Medicine and Dentistry is the result of an effort on the part of the medical and dental profession of Battle Creek to extend to the limit their professional co-operation in the present emergency. It is also an effort to forestall state medicine by answering the question as to whether these professions can submerge their own interests in behalf of the health of the indigent public.

While the Academy is now in actual operation, it is yet too soon to say how perfect it will function. It doubtless has many weaknesses, but it is expected that these will be corrected as soon as they appear. The number of cases passed by the investigating committee for medical care during its first month of existence suggests that a huge epidemic is raging. However, this apparent rush of business is explainable on the ground that all those registering at the city welfare headquarters are given carte blanche service by the Academy members in case of sickness. After a few months, or possibly not until the end of the year, will it be possible to pass judgment on how well it fulfills its mission. Careful records of cases by the Social Worker, and systematic accounting of its funds are being kept by an expert accountant and, as the experiment unfolds, one may hope for a wealth of facts upon which to guide in other experiments of this kind.

Battle Creek is a city of 50,000 population, and has forty-five physicians and twenty-seven dentists in active practice, who are members of the Academy.

WHOOPING COUGH: STUDY IN IMMUNIZATION

Louis Sauer, Evanston, Ill., points out that from 7 to 8 c.c., of a relatively fresh pertussis vaccine (1 c.c. = 10 billion), made from five to seven recently isolated, hemolytic strains, given hypodermically in divided weekly doses seem to have immunized an appreciable number of young susceptible children. During the past four years about 300 nonimmune children have been injected without any untoward symptoms. The local reaction is transient. The leukocyte count on the day of the last injection in 60 per cent ranged from 12,000 to 15,000 per cubic millimeter, with the percentage of small lymphocytes often increased. There have been eight certain (cohabitational or household) exposures, and a total of 127 probable (transient or accidental) exposures without any child contracting whooping cough.—*Journal A. M. A.*

SOCIETY ACTIVITY

The A. M. A. convenes in Milwaukee the week of June 12.

There are some interesting reports under County Society news. Read them.

A Post-Graduate Conference will be held in Saginaw on March 9. See the program in this issue.

Did you read the Medico-Legal Committee's report in the February issue? If not, do so, for it tells you how best to guard against suits.

Calhoun County held a memorial meeting on February 7 for the late Dr. Ray C. Stone. Dr. B. R. Corbus delivered the memorial address.

The April issue will contain the papers and discussions of the Annual Conference of County Secretaries held in Grand Rapids on February 28.

A joint meeting of Manistee and Mason County Societies was held in Ludington on February 23, at which your Secretary discussed pending medical problems.

Are you a Fellow of the A. M. A.? Ascertain whether you are merely a subscriber to the A. M. A. Journal. A fellowship application should be made. The annual price is the same.

The Committee on Civic and Industrial Relations has caused a bill to be introduced in the legislature which if enacted will enable doctors, hospitals and nurses to obtain a lien against insurance and liability settlements for services rendered in cases arising from automobile accidents. See your Senators and Representatives and secure their support for this bill.

Income Tax: Such a proposal is now before the Legislature. It involves all professions and salaried executives. Our policy has been to record organizational expressions only in matters related to health and medical practice. In civic matters, and taxes are civic, approval or disapproval should be recorded by joining other citizens or civic bodies in expressing personal attitude and opinions.

Advertisers: This issue contains several new and "keyed" ads. Read them, reply to them. Your patronage determines our advertising earnings. If you are busy request your wife to answer for you. Auxiliaries can be most helpful in lending patronage support. Increase the value of our advertising pages by giving business preference to those who use this space and contribute to your Journal.

DR. C. A. NEAFIE GOES TO MAINE

Announcement was made on February 10, that Dr. C. A. Neafie of Pontiac had been appointed Deputy Director of Health for the state of Maine. He assumes his new duties on March 1, 1933.

Dr. Neafie's professional affiliations have been as follows:

PROFESSIONAL AFFILIATIONS

Fellow—American Medical Association.
Member—Michigan State Medical Society (Councilor, 15th District 1930-1935).
Member—Oakland County Medical Society (Secretary, 1927-1930; President-Elect, 1932; President, 1933).
Fellow—American Public Health Association.
Member—Michigan Public Health Association (President, 1924-1926).
Member—Oakland County Public Health Association (President, 1928-1930).
Member—Delta Omega Society (Delta Chapter, University of Michigan) (Honorary Public Health Society).
Member—International Association of Medical Health Officers.
Member—American Association of School Physicians.
Member—Society of American Bacteriologists.

Dr. Neafie is a graduate of the University of Maryland, 1909, M.D.; University of Michigan, 1924, M.S. (in Public Health). He came to Pontiac, Michigan, in 1912 to accept an appointment on the resident staff of the Pontiac State Hospital. In 1914 he entered private practice in Pontiac, in 1917 was appointed part time health officer of Pontiac, and in 1918 whole time Director of Public Health.

On February 15 the Oakland County Medical Society tendered him a dinner. Addresses were made by local members and by President Robb and Dr. Henry Vaughan.

Congratulations are extended to Dr. Neafie. Our good wishes attend him in his new field of professional work.

Our society is indebted to Dr. Neafie for time, labor and unselfish services contributed for the advancement of all of our organizational activities. His was a goodly example

Dr. C. A. Neafie

and gained for him a host of friends. We shall all miss him but will continue to hold him midst pleasant memories as a gentleman and a trustworthy friend.

BANK MORATORIUM

During the existence of this bank moratorium and pending enactment of legislation county secretaries are requested to remit state dues by *post office or express money orders*. For these we can secure currency to pay current bills.

As you collect dues do not deposit them in your local bank. Legislation and rules will undoubtedly be enacted whereby you can withdraw only a percentage of your deposit. Take the member's check and cash it and then remit with a post office or express order.

On February 21 we have had over $4,000 in County Secretaries' checks returned. We are holding these for future collection.

Please observe the above request and remit all dues possible to collect as suggested.

A NEW RACKET

Rackets are seemingly the order of the day and invade many fields. An old one is being revived—it is not new.

Recently it was reported that it was being worked anew in Michigan. A young, usually attractive, woman calls at a doctor's office. On admission to the consulting room she advances certain complaints referable to the pelvic region and suggests an examination. The doctor has no office nurse or assistant. Apparently this is known, for these are the doctors who are put on the spot. The examination is made. The patient departs.

Within a day or two the doctor receives a letter from an attorney declaring that Miss Blank claims the doctor attempted to assault her and that the case can be hushed up and settled for a certain amount. And there you are!

The warning is given to be on guard. Never make a pelvic examination without the presence of a third known party. Observance of this rule will prevent your being victimized. When such threats are made report them to the police at once.

MICHIGAN STATE MEDICAL SOCIETY
And
DEPARTMENT OF POSTGRADUATE MEDICINE OF UNIVERSITY OF MICHIGAN POSTGRADUATE CONFERENCE

Saginaw, Michigan—Thursday, March 9, 1933
Bancroft Hotel, 10:00 A. M.

1. Opening Statement—Councillor J. H. Powers, presiding
2. 10:10-10:40 Principles in Treatment of Fractures (Lantern Slides).
   F. C. Warnshuis, M.D., Grand Rapids
3. 10:40-11:10 Nephritis.
   Richard M. McKean, M.D., Detroit
4. 11:10-11:40 Endocrinological Factors.
   Robert C. Moehlig, M.D., Detroit
5. 11:40-12:10 Serology.
   Richard M. McKean, M.D., Detroit

   12:10–1:15 Luncheon
6. 1:15-1:45 Economic Problems Involving Medical Practice.
   F. C. Warnshuis, M.D., Grand Rapids
7. 1:45-2:15 Endocrinological Therapy.
   Robert C. Moehlig, M.D., Detroit
8. 2:15–2:45 Adequate Medical Care.
   Nathan Sinai, Ph.D., Ann Arbor
9. 2:45-3:45 Community Interest and Problems. Round Table Discussion.

The above program will govern this Saginaw

Conference. Councilor Powers cordially invites every member in the vicinity of Saginaw to attend. The members of the Bay County Society are invited to participate in this Conference. Please note the time and place, plan to attend and bring a friend.

UNIVERSITY OF MICHIGAN
The Department of
POST-GRADUATE MEDICINE
and the
MICHIGAN STATE MEDICAL SOCIETY
announce a
Post Graduate Course
in
PULMONARY TUBERCULOSIS

University Hospital
Ann Arbor, Michigan
March 20-24, 1933

ANNOUNCEMENT

The newer methods in diagnosis, in medical and surgical treatment, and in the post-sanatorium care of pulmonary tuberculosis in adults and children are emphasized in this course.

One of the difficulties experienced in the care of pulmonary tuberculosis is due to the chronic character of the disease. Patients have to be kept under observation for prolonged periods, and unless large numbers of beds are available there is bound to be, at all times, a considerable number to whom sanatorium privileges are not available. During the past few years certain mechanical and surgical procedures have greatly increased the number of cures as well as materially shortened the period of disability. One of the newer methods of treatment is a very simple procedure which puts the affected lung at rest. When the affected lung reaches a certain stage of healing and the patient is no longer a menace to those about him, he might in safety return home if, within reasonable distance, there are doctors trained to carry out this particular form of treatment.

The history of past economic depressions would lead us to expect an increase in tuberculosis. This course offers an opportunity for physicians to obtain instruction in tuberculosis at a time when they can best afford to take advantage of it.

Lectures, clinics, ward rounds, surgical demonstrations and opportunities for physical examination of patients will be given.

Registration is limited. Enrollment will be in order of application. Fee is $10.00.

Address:

Department of Post-Graduate Medicine
University Hospital
Ann Arbor, Michigan

Unless otherwise designated, class will meet in Room 7308

Monday, March 20th

MORNING

8:00–10:00 Registration. Room 2040
10:00–11:00 Anatomy and physiology of lungs and respiration. Dr. John W. Bean
11:00–12:00 Bacteriology. Room SB360 Dr. Reuben L. Kahn

AFTERNOON

1:00–2:00 Pathology of tuberculosis. Pathology amphitheatre. Dr. Carl V. Weller
2:00–3:00 Tuberculin and allergy. Dr. Henry S. Willis *Northville*
3:00–4:00 Epidemiology and tuberculosis control. Dr. Henry D. Chadwick *Detroit*
4:00–5:00 Tuberculosis in children. Dr. Henry D. Chadwick *Detroit*

Tuesday, March 21st

MORNING

9:00–10:00 Office diagnosis of tuberculosis. Dr. George C. Stucky *Lansing*
11:00–11:00 Methods of history taking and their importance Dr. John B. Barnwell
11:00–12:00 Value of the physical examination in various types of pulmonary tuberculosis. Dr. Arthur C. Curtis

AFTERNOON

1:00–3:00 Differential diagnosis of tuberculosis and the common lesions simulating pulmonary tuberculosis. X-ray films. Room G420 Dr. Fred J. Hodges
3:00–5:00 Demonstration by patients of the common physical signs in pulmonary tuberculosis. Dr. Arthur C. Curtis and Staff

---

Wednesday, March 22nd

MORNING

8:00–9:00 Minimal requirements for a diagnosis of pulmonary tuberculosis. Dr. John B. Barnwell
9:00–10:00 Problems in diagnosis. Dr. Henry Field
10:00–11:00 Laryngeal tuberculosis. Room 1603 Dr. A. C. Furstenberg
11:00–12:00 Tuberculosis of bone and joint. Amphitheatre, second floor. Dr. Carl Badgley

AFTERNOON

1:00–2:00 Genito-urinary tuberculosis. Dr. Reed M. Nesbit
2:00–3:00 Relation of physician to national, state and local organization. Mr. Theo. J. Werle *Lansing*
3:00–4:00 Classification of pulmonary tuberculosis. Dr. John B. Barnwell
4:00–5:00 Activity of tuberculous foci. Dr. John B. Barnwell

Thursday, March 23rd

MORNING

8:00–9:00 Treatment. Fundamentals. Dr. Salvatore Lojacano *Marquette*
9:00–10:00 Rest of the diseased lung. Dr. John M. Sheldon
10:00–11:00 Indications for pneumothorax and results. Dr. Arthur C. Curtis
11:00–12:00 Indications for phrenicectomy and results. Dr. R. H. Morgan *Detroit*

AFTERNOON

1:00–2:00 Indications for other surgery. Dr. Cameron Haight
2:00–3:00 Light therapy. Dr. Willis S. Peck
Diet Mrs. Dorothy S. Waller
3:00–4:00 Complications and their treatment. Dr. Ferdinand R. Schemm
4:00–5:00 Problems in treatment. Staff

Friday, March 24th

MORNING

8:00– 9:00 Demonstration of pneumothorax.
Room 7307
Dr. Thomas M. Durant and Staff

9:00–12:00 Thoracic surgery clinic.
Dr. Cameron Haight and Staff

AFTERNOON

1:00– 3:00 After care. Dr. Bruce Douglas
Northville

3:00– 4:00 Methods of follow up.
Dr. John B. Barnwell

4:00– 5:00 Surgery ward rounds.
Dr. Cameron Haight

HONORING PRESIDENT-ELECT G. L. LEFEVRE

"For forty years I have been on friendly terms with Dr. George LeFevre, and I am frank to say that today we are the best of friends. No greater tribute can be paid to him than that we should remain thus." So said Dr. Black of Holton, Michigan, at a dinner given in honor of Dr. George LeFevre, January 25, 1933, at the Century Club, Muskegon, Michigan.

Muskegon County Medical Society set aside Wednesday, January 25, in which to pay homage to its most illustrious members, and to take cognizance of the fact that one of its members has been chosen as president-elect of the Michigan State Medical Society. For the first time in the history of the State Medical Society have they seen fit to elevate a member of the Muskegon Society to this office. Muskegon is more pleased than they can say, and since the honor was to be conferred upon our society, the fact that Dr. George LeFevre was the individual recipient meets with the unanimous and enthusiastic approval of each and every member. No better evidence of the regard in which his colleagues and his fellow citizens hold him could be demonstrated than at this function.

Dr. George LeFevre is more than merely one of Muskegon County's leading physicians and surgeons. His myriad activities have dipped into all walks of life and not only has he accomplished much for the betterment of the practice of medicine, but the community itself has also gained commercially, civically, and financially. Muskegon is better off for his having been here, and the most unique feature of his whole career is the fact that in all his various services there has been a minimum of rancor and dissension. He makes friends, even with those whom he opposes, and keeps all friends.

Conservative in his actions, yet ready to change for the better at any time, kind and courteous, helpful, the arbiter of disputes, the tactful diplomat, he is one gifted in leadership qualities—the friend of all.

One hundred persons attended the banquet in his honor, which incidentally was the regular meeting of the Muskegon County Medical Society. This was the largest and most enthusiastic meeting in the history of our society. Men whose efforts in behalf of organized medicine, well known to all of us, were there—the Mayor of Muskegon, secreatry of Chamber of Commerce, directors and cashiers of two of our banks, the president of the Bar Association, of the Dental Society, the Board of Trustees of Hackley Hospital, and many other guests from within and without the profession.

Dr. Warnshuis spoke of his years of friendship with Dr. LeFevre: spoke in his inimitable style, which mere words cannot describe. The bonds of fellowship were once more made evident and strengthened, between these two stalwarts of organized medicine. Dr. Corbus of Grand Rapids, fellow councilor of Dr. LeFevre through these many years of association, livened up the evening with his reminiscences of Dr. LeFevre's automobile driving. He expressed surprise at being able to honor the guest of the evening at his age, and assured those present that some divine aid was responsible for his presence on this earth. Dr. Boys

Dr. George LeFevre

of Kalamazoo and Dr. MacMullen of Manistee, also members of the council, joined in their praise of Dr. LeFevre.

One may be honored and respected by his sometime associates, yet those who must contact him in his daily routine are apt to know best. Those men who have associated with Dr. LeFevre in the workings of organized medicine had spoken of him as they knew. But what about the home folks?

Dr. F. W. Garber, Sr., for many years his associate, was unable to be present due to illness. In his expression of regrets, he assured us that Dr. LeFevre's initiative and fullness of purpose have been of inestimable value to Muskegon. Friendly always, a hard worker, progressive and ever endowed with the spirit of youth and of coöperation, these were a few of his qualities. Dr. Black of Holton expressed feelings of the warmest nature to his old associate. Dr. Roy Holmes of Muskegon, one of the younger members of the society, was so impressed by the results of his association with Dr. LeFevre that he was somewhat non-plussed.

Mayor W. W. Richards of Muskegon voiced the opinion of the City Commission. Thirteen years ago Muskegon discarded their old form of government, selected a charter commission of which the Mayor and Dr. LeFevre were members, put the new charter into effect, and as an evidence of the popular esteem in which the good doctor is held, chose him as one of its first commissioners. The mayor reviewed those past years, and also spoke of Dr. LeFevre's efforts on behalf of the Muskegon County

Tuberculosis Sanitarium, of which Board Dr. Le Fevre is president.

Mr. Otto Seyforth, president of the West Michigan Foundry Company, and fellow bank director of Dr. LeFevre, spoke of the associations as engendered in the financial world. Mr. Sayforth's opinions as stated were in keeping with the others—helpful ever, yet never shirking responsibility.

Mr. John Beukema, secretary of the Chamber of Commerce, spoke on his associations with Dr. LeFevre. Some years previous an organization was started, known by the name of "The Industrial Foundation," the purpose of which was to encourage new industries to locate in this area as well as to aid those already established. For president they chose Dr. George LeFevre. Mr. Beukema could not be too enthusiastic in his praise of the business foresight, sagacity and helpfulness of Dr. LeFevre, nor could he even calculate the benefits the community had derived from the services so freely and cheerfully given by him whom we were honoring.

Mr. Archie McRea, editor of the Muskegon Chronicle, and member of the Board of Trustees of Hackley Hospital, reviewed their associations, both on the charter commission of Muskegon and then the hospital. His words of praise were directed toward the fact that the doctor was not only proficient at suggesting improvements, but persevering in his efforts to see the things suggested turned into actualities.

Dr. Walter N. Steele, of the Muskegon Dental Society, expressed thanks for the coöperation of these two allied professions, most especially for the privilege of associating and counseling with so gracious a personage as Dr. LeFevre.

To listen to the praise that had been heaped upon his head would not only tend to flatter one of a lesser build than Dr. LeFevre, but would have made the evening one long series of climaxes. But Dr. T. G. Yeomans, of St. Joseph, the principal speaker of the evening, tore away the cloak with which the others attempted to cover Dr. Le Fevre and by personal anecdotes and reminiscences revealed him as the fellow man he is to us all, thus completing the picture.

Horatio Alger, Jr., in his palmiest days, never wrote a story better than Dr. LeFevre's biography. Poor boy, drug clerk, physician, and surgeon, chairman of the Board of Directors of one bank, president of another, City Commissioner, president of the Board of Tuberculosis Sanitarium, president of the Industrial Foundation, nominal head of the Muskegon Chapter of the Crippled Children Society, president of the Michigan State Board of Registration in Medicine for sixteen years, and many other honors not mentioned have fallen to his lot. But to be the recipient of these, and at the same time remain a staunch and true friend of all he meets is evidence of the worthiness of the gentleman, and evidence of his further due to be elected President of the Michigan State Medical Society. We cannot call this a climax, for in the words of the good doctor himself, he expects to be with us for twenty years more.

We of Muskegon County Medical Society hope that such a state of affairs as now exists will continue indefinitely. And may the future find more honors to confer upon him, who so greatly deserves them.

We regret that Drs. McLean and Robb were detained in Detroit, with school board affairs. Dr. Kelly of Detroit was also unable to be present. Dr. Hyland was confined to his home by illness. Dr. Richard Smith, Dr. Bruce, Dr. Gorsline, and Dr. Marshall of Flint were vacationing and so could not attend.

R. J. D.

HOSPITAL PRACTICE

It is difficult to understand why Trustees or a Board of Managers of a hospital should consider themselves impelled to develop plans for engaging in medical practice.

Hospitals are nursing institutions. They were established to provide facilities for rendering care and to enable the doctors to more ably institute medical and surgical treatments. That is their sole function.

Within the past fifteen or twenty years, hospitals have gradually sought to broaden their scope of endeavor. Free clinics were established with medical staffs, and free professional and hospital care is being provided for a certain class of patients There is nothing wrong in that, provided the service is rigidly limited to those who are in dependent circumstances. So far all was well.

In the last ten years hospital boards and managers have gone on a building debauch.

New hospitals were built at tremendous costs. Furnishings and equipment were made most elaborate and expensive. Bed capacity was frequently expanded beyond community needs. Operating and maintenance costs increased from three and four dollars per patient day to eight, ten and twelve dollars per day. These elaborate structures presented financial problems of administration that could not be balanced by endowment earnings and what patients were able to pay.

Added to this were the nurses' training schools. The period of training was unwisely increased from two to three years. The pupil nurse during her first year spent the greater part of her time in the class room, yet she had to be housed, fed and clothed. A larger number of salaried instructors and supervisors was employed, housed and fed at a markedly increased cost to the hospital and charged against patients' care.

Thus there came into existence elaborately constructed hospitals, expensive to maintain and costly to administer. Then came the depression with a very marked falling off of patients able to pay for hospital care and an increased number of charity patients. Deficits mounted from month to month. Credit became exhausted. Charity funds almost vanished. Retrenchments of a limited character were made but did not solve the financial problem. Then managers and boards cast about for new sources of revenue.

During the past three years, and particularly during the last year, numerous plans were outlined. They were: flat rates, yearly care, and hospital care and medical services at a given rate per person, per family or per case. In Texas, for a given monthly payment several hospitals offered a certain number of weeks of hospital care. In Philadelphia recently two hospitals offered hospital and medical care upon payment of monthly premium rates. Thus hospitals are seeking to fill their beds and secure income by bargain rates and competitive solicitation methods.

The medical profession has no quarrel nor is it in disagreement with the trustees of any hospital advancing plans for providing hospital care at given rates payable in installments provided that the persons who accept these terms have the right to select and call the doctor they elect. Their free choice of physician must be assured and not limited to a small staff. Of course that selection should be restrained to the recognized, competent physicans of the community.

The medical profession does object and strenuously so, when a hospital offers in addition medical and surgical care in which the physician or surgeon has no voice in fixing the fee he shall receive

for his services. Hospitals cannot presume to fix a flat rate and arbitrarily deduct its percentage and then say to the doctor or surgeon, "You will receive so much for your services." The profession holds, and jealously so, that each doctor shall ever have the right of fixing the value of his professional service. Whenever a hospital usurps and denies that right the profession, in self protection, will resist every and all such attempts, and act to defeat such proposals.

The profession assumes the same attitude in regard to Hospital Diagnostic Clinics. There is no opposition to such clinics as long as free choice of physicians is countenanced and the physician is free to fix his own fee.

Exploitation of physicians and their services in order to increase hospital income cannot be condoned or approved.

Hospital authorities should remember that for several years their increased rates have been the chief factor in increasing the expense of illness. The costly built and expensively operated hospital has created increased rates and added very materially to the expense of sickness. The physician's or surgeon's fees constitute but a small percentage of the total sickness cost as has been clearly shown in several recent investigations. Retrenchment should be made and balanced operating budgets should be accomplished through other means. Room exists for some very radical hospital administration and operation reforms. They must not be attained through exploitation of the doctor or by competitive means that are discriminatory.

A SPONSORED PUBLIC MEETING

On Thursday evening, January 19, 1933, the Medical Society of Ingham County sponsored a public meeting in the Prudden Auditorium. There were approximately 1,500 people present.

Mr. Clarence E. Bement, chairman of the board of the Novo Engine Company, was Chairman of the meeting. He was introduced by Dr. Wm. E. McNamara, president of the Medical Society. Mr. Bement, following a brief talk on government cost reduction, introduced the speaker, Capt. C. M. Mills, Field Secretary of the National Economy League, who gave the main address of the evening. Stating that Economy is the watchword of the hour, he defined Economy as fundamentally "household management," and not merely the spending of money. It is essential to practise household economy in government, and the vital question is where and how to use economy so that the greatest benefits for all the people may be obtained. It is not real economy to seriously curtail or even eliminate necessary and beneficial services of the government by which the people receive full value. Therefore it is essential economy to fight to a finish to cut out of governmental expenditures every dollar which represents favors for the few, or obvious extravagances, usually gained by highly organized and efficient minorities or blocs. It is upon these principles that effective and sweeping slashes in government costs can and must be made; it is upon this platform that democracy can be saved from eating its head off in overhead, from chaos, from final destruction.

The pressure of public opinion and the alarming decline of revenue at last has begun to make local legislators really serious in slashing the costs of government. In the first six months of the present fiscal year, Uncle Sam went into the red, or into debt, $1,160,000,000. This monstrous sum is 3 times the cost of the Panama Canal; nine times the cost of the war debt payments due last December from the debtor foreign nations. It averages more than nine dollars for every man, woman and child in the U. S. Every day the public debt increases $6,300,000. What are the causes of this situation? First, income taxes have fallen $272,000,000 behind last year. Income taxes now represent only 26 per cent of our Federal revenue, in contrast to about 60% in 1929-30. Secondly, custom duties and tariff charges have declined to new low levels. Third, the so-called Special or Nuisance taxes have failed by almost 50 per cent of expected revenue.

A summary indicates the following facts.

1. The income tax at the present time is *not* a substantial source of Federal revenue and is declining rapidly both in total amount and in number of taxpayers.
2. The special nuisance taxes instituted last summer have failed to come up to estimates by a wide margin.
3. Federal income is now imposed upon a large body of consumers through special taxes and indications are that even wider distribution of consumer taxation will take place.
4. The present burden of federal taxation shows that either new taxes must be imposed, or else sweeping slashes in departmental budgets of the Federal government must take place.

The answer lies in Economy, not more taxes. National defense, Public works and the Postal departments show reductions in the new budget, while veteran relief increases by $41,287,000.

In two important sectors of the budget, the National Economy League has emphasized economy:

1. The League is committed to a reorganization of the executive branches of the government to eliminate needless departments, bureaus, commissions which are duplications of functions, effort and expense. The League will support any administration which can prove economy through mergers.
2. The League stands for reduction of expenses now paid to Veterans of all wars now amounting to almost one billion dollars per year.

The National Economy League has set up the policy of advocating the most liberal treatment possible for those actually disabled in line of service, for the widows of men killed or who died of disease in line of service, and for their dependents. On the other hand, it has resolved that not one cent shall be paid to those veterans who have returned from wars able-bodied, and who now seek by the pressure of strongly organized minorities payment for disabilities that have occurred in civilian life. As a first specific objective in line with this policy, we seek the eliminaton of legislation which allows $450,000,000 to be paid out during the current fiscal year to Spanish-American and World-War veterans who suffered no disabilities in actual war service without impairing the principle of liberal compensation for real war sufferers and their dependents.

The total cost of the Civil War was $3,500,000,000. It is estimated that before the last survivor or widow of a Civil war veteran will die, we will have paid $8,500,000,000 in pensions. Likewise, the cost of the Spanish War was about $582,000,000, but before the last beneficiaries have died we will have spent over $6,300,000,000. Likewise for the World War, according to General Hines of the Veterans' Bureau by 1945, with no changes upon our legislative books, we will have spent a sum equal to the entire cost of the World War, $21,500,000,000. It is estimated that the entire cost of the World War will be well over $80,000,000,000.

Since the formation of our government, $15,500,000,000 has been paid for Veterans' relief of all kinds. Of this sum, including bonus loans, we have paid approximately $7,000,000,000 for World War veterans. General Frank Hines, Director of the

Veterans' Administration, reports that this year, although England suffered casualties of over 2,000,000 men and France more than 5,000,000 men, in contrast to our 350,000, the average annual payment for the dead and injured in England this year will be $59 per man; in France $51 per man and in the U. S. $2,658.

Last year the government spent more than one-half of the total revenue derived from all sources for veterans. This year, the appropriaation for veterans vastly exceeds the entire cost of the government in each of the seven years prior to the World War.

President Hoover attached in his budget recommendations for $127,000,000 reduction in Vetcrans' relief. But, the rccommcndations dcal only with comparatively small reductions—a mere whittling down of vast wasteful cxpenditure of the people's money. Never before has a most useful opportunity been given to the Chief Executive of our country to go to the heart of the question—to go beforc this nation on the basis of moral principles.

The meeting adjourned.

Russell L. Finch, *Secretary.*

COUNTY SOCIETIES

BAY COUNTY

A regular meeting of the Bay County Medical Society was called by President Huckins, Wednesday evennig, January 11, 1933, at the Wenonah Hotel, Bay City, at which time the District Nurses' Association were guests. Over eighty were present.

The meeting was given over to a discussion of the subjects affecting the Medical and Nursing professions. Among the subjects discussed were: Nurses' fees; Nurses' register; Nursing bureau; Nurses' roster.

The meeting developed an apparent close coöperation between the professions. Expressions were had from the Public Health Nurses and the Private Duty Nurses.

The meeting was further featured by talking movies, provided through the courtesy of the Petrolagar Laboratories.

The Society, through its members in the American Legion, prepared a resolution, protesting the hospitalization of veterans, away from their own communities.

A regular meeting with thirty members present, was called by President Huckins, at the Hotel Wenonah, Wednesday, January 25, 1933.

The Society unanimously endorsed the Minority report of the Committee on the Costs of Medical Care.

The members were addressed by Dr. Earl I. Carr, of Lansing, on the subject of "Medical Legislation." Dr. Carr, a master of the subject, gave the members some very timely information. He was followed by William Burns, Executive Secretary of the Wayne County Medical Society, who also spoke on Legislation and some objectives for the Women's Auxiliary.

Following the meeting, Dr. Allen entertained the members, at his home.

L. Fernald Foster, M.D., *Secretary.*

BERRIEN COUNTY

The Berrien County Society held their annual meeting in Benton Harbor at the Hotel Vincent on December 17, 1932.

The time was given over to a discussion of medical economics dealing particularly with the report of the Committee on the Costs of Medical Care. A summary of the report was given by Dr. A. A. Rosenberry of Benton Harbor and a general discussion was participated in by nearly all present.

Due to the small attendance it was decided to mail the report of the nominating committee on a spcial ballot which could be returned by mail, in that the society does not meet in January or February. The next meeting will be in March when the new officers will be installed.

The results of the election were as follows: President, John Ames, Niles; vice president, Dean Richmond, St. Joseph; secretary and treasurer, W. C. Ellet, Benton Harbor; delegate to state society, W. C. Ellet, Benton Harbor; alternate, Ed. Vary, Niles.

W. C. Ellet, *Secretary.*

EATON COUNTY

The Eaton County Medical Society have elected the following officers for the year of 1933: President, Dr. C. H. Sackett, Charlotte; vice president, Dr. Garner Byington, Charlotte; secretary-treasurer, Dr. B. Van Ark, Eaton Rapids; delegate, Dr. A. G. Sheets, Eaton Rapids; alternate, Dr. K. A. Anderson, Charlotte.

The year 1932 was an unusual year for the Eaton County Medical Society in that it was actively interested in three major problems.

1. The problem of a schedule of fees arranged with the supervisors for indigent cases of the county.
2. A proposed and accepted entrance in Eaton County of the W. K. Kellogg Foundation.
3. The support of County Medical Society to the new County Hospital.

In 1933 we expect to carry on all work started in 1932.

B. Van Ark, *Secretary.*

GOGEBIC COUNTY

The annual meeting and banquet of the Gogebic County Medical Society was held at the Curry Hotel on the evening of December 20, 1932. The Society was entertained with musical selections and later in the evening Dr. M. A. Gertz, who has recently returned from Vienna, gave an interesting paper on "Psychoanalysis."

After the banquet, the regular business meeting was held with the election of officers for the year 1933: President, Dr. W. J. Pinkerton; vice president, Dr. H. A. Pinkerton; secretary and treasurer, Dr. F. L. S. Reynolds; state delegate, Dr. W. E. Tew; alternate, Dr. C. C. Urquhart; Defense League representative, Dr. D. C. Pierpont.

F. L. S. Reynolds, M.D., *Secretary and Treasurer.*

HILLSDALE COUNTY

The Hillsdale County Medical Society met at the Ambler House Tuesday, January 24, 1933, at 6:00 P. M., the President, Dr. Hodge, in the chair.

Dinner was served by the students of the Home Economics Department of Hillsdale College, after which the meeting was called to order by the President and the following program submitted:

1. Minutes of last meeting read and approved.
2. Paper "Neglected Drugs"—Dr. D. W. Fenton.
3. Round Table Conference, "Influenza," led by Dr. C. T. Bower, followed by general discussion.
4. Reading of letter from Dr. Warnshuis in regard to care of the indigent.
5. Miscellaneous business, including appointment

of committee to confer with the Board of Supervisors on the subject of the eare of the indigent; committee so appointed—Dr. Green, Dr. Mattson, Dr. Hanke, Dr. Hamilton, Dr. Martindale and Dr. Poppen.

6. Presentation of the fee bill of 1919.
7. Discussion of the proposal to unite the County Medical Societies of St. Joscph, Branch and Hillsdale, which was favorably voted upon, the three societies maintaining their identity but holding their mcetings jointly eaeh month.

Dr. Luther W. Day of Jonesville was received into the Society.

The Society then proceeded to the election of officers for the ensuing year, resulting as follows: President, Dr. H. F. Mattson; vice president, Dr. Luther W. Day; secretary-treasurer, Dr. D. W. Fenton; delcgate to State Medical Society, Dr. A. E. Martindale; alternate, Dr. C. T. Bower.

D. W. Fenton, *Secretary.*

HOUGHTON COUNTY

At the meeting of January 3, 1933, held at Miscowaubic Club, Calumet, Michigan, the following officers were elected for the year 1933: President, Geo. McL. Waldie, Hancock; vice president, T. P. Wickliffe, Calumet; secretary-treasurer, Arthur F. Fischer, Hancock.

Arthur F. Fischer, *Secretary-Treasurer.*

JACKSON COUNTY

Almost seventy members of the Jackson County Medical Society turned out for the first meeting of the year, which was held at the Elks Temple on the evening of January 17, 1933. After dinner the members adjourned to the Memorial Room for the business and scientifie portion of the meeting.

Dr. Smith, Chairman of the Public Relations Committee, suggested that the fees be reduced on house visits to patients living within a radius of five miles of the center of the city to three dollars. After some diseussion Dr. Brown moved that the suggestion be adopted. Motion seconded by Dr. Harris. The motion lost by a vote of twenty to twelve.

Dr. Hanna reported that the testing of school ehildren for tuberculosis would be started in the near future. Positive cases will be referred to their family physician for follow-up work. X-ray examination should be urged where the Mantoux test is positive.

During the past few years there has been some objection to having the annual Ladies Night in December on the same day as the election of officers. It was moved by Dr. Alter and seconded by Dr. O'Meara that for this year the annual election be held on the second Tuesday afternoon in December and the Ladies Night on the following Thursday evening. The motion was carried.

Dr. Riley moved that Dr. Walter Finton be appointed to represent the Jackson County Medical Society in the re-organization of the Jackson Chamber of Commerce. Seconded by Dr. Clarke. Motion earried.

Dr. E. F. Lewis was then introduced as program ehairman, who introduced Dr. Spaulding of Detroit, who gave an interesting talk on "Cardiac Disorders and the Electrocardiogram."

R. H. Alter, M.D., *Secretary.*

MARQUETTE-ALGER COUNTY

The annual meeting of the Marquette-Alger County Medical Society was held at the Hotel Northland, Marquette, Michigan, January 17, 1933.

The following officers were elected for the ensuing year: President, Dr. T. R. Laughbaum; vice president, Dr. A. W. Erickson; secretary-treasurer, Dr. D. P. Hornbogen; delegate, Dr. Vivian Vandeventer, and alternate delegate, Dr. R. A. Burkc.

It was voted at this meeting that the Soeiety give a rebate of $1.25 on the dues for the coming year, which, with the $1.25 allowed by the State Society, would makc the total $2.50, the same as in 1932.

D. P. Hornbogen, *Secretary.*

MIDLAND COUNTY

On February 1, 1933, the Midland County Medical Society met at the Country Club. Seven members were present and enjoyed luncheon together.

Charles S. MacCallum was elected president and E. J. Dougher secretary for year 1933.

E. J. Dougher, *Secretary.*

NEWAYGO COUNTY

The regular meeting of the Newaygo County Medical Society was held at the home of Dr. O. D. Stryker the evening of January 11, 1933. After the reading and approval of minutes of the previous meetings the following officers were elected for the ensuing year:

President, Dr. W. Geerling; vice president, Dr. O. D. Stryker; secretary-treasurer, Dr. W. H. Barnum; delegate to State Medical Society, Dr. A. C. Tompsett, Hesperia; alternate, Dr. H. R. Moore, Newaygo.

Dr. Guy Post of the County Health unit, and Dr. Chas. Branch, White Cloud, were admitted to membership in the Society. Dr. Post then made a proposal to establish a biological station at the Gerber Memorial Hospital for accommodation of the physicians and hospital use, being agreeable to all.

A delicious lunch was then served by Dr. Stryker and his graeious sister, Mrs. Kik. Nine members were present.

W. H. Barnum, *Secretary-Treasurer.*

NORTHERN MICHIGAN

The February, 1933, meeting of the Northern Michigan Medical Society was held Thursday, February 16, at the Perry Hotel, Petoskey. The meeting had been postponed a week due to the storms.

After dinner the meeting was called to order by President Frank. The speaker for the evening, Mr. S. B. Harvey of Traverse City was then introduced. Mr. Harvey is conneeted with the State Welfare Department and gave an interesting talk on child delinquency.

After the talk the regular business of the Society was taken up. Minutes of last meeting were read and approved. Secretary then read the correspondence. New membership committee was appointed eonsisting of Drs. Conway Wood and James Stringham.

Dr. Mayne was reappointed Legal Representative.

Dr. Dean Burns was appointed to the program committee for Mareh and April.

Applications of Dr. Bernard Beuker of East Jordan and J. E. McGregor of Boyne City for membership were received. Dr. Craddock of Mackinaw City was elected to membership.

E. J. Brenner, Secretary.

ONTONAGON COUNTY

At the annual meeting of the Ontonagon County Society the following officers were elected for the year:

President, H. P. Blake, Bergland; vice president, J. L. Bender, Mass; secreatry-treasurer, E. J. Evans, Ontonagon; Trustee for three years, H. B. Hogue, Ewen; delegate to State Meeting, E. J. Evans, Ontonagon; alternate delegate, F. W. McHugh, Ontonagon.

E. J. EVANS, *Secretary-Treasurer.*

SAINT CLAIR COUNTY

A regular meeting of the Saint Clair Society was held Tuesday, February 7, 1933, at Edgewater Inn, Port Huron, Michigan. Supper was served at 6:45 p. m. to five guests of the legal profession and four guests of the medical profession as well as to eleven members of the Society. After supper five other members of the Society attended the meeting. Owing to the importance of the subject to be discussed and also because of the interest members of the legal profession might have in the subject, the President of the Society invited the members of the Saint Clair County Bar Association to be present. Owing to inclement weather but five lawyers took advantage of the invitation. The meeting was called to order by President McColl at 7:55 p. m. and all business was suspended except that the Secretary read an application for membership from Dr. H. R. Johnson of Capac. This was referred to the Board of Trustees and Censors for action.

The President introduced Doctor Foster of Detroit, who addressed the Society upon "Traumatic Neurosis." The speaker opened his remarks by saying that the profession should use the term "traumatic" in connection with a neurosis with great caution. He preferred to express such conditions as a "neurosis following trauma" unless it could be proven with reasonable certainty that the condition was truly a "traumatic neurosis." He expressed the idea that a neurosis was primarily a defense reaction against economic conditions and society. Contributory conditions causing a present increase in the type of "neurosis following trauma" were said by Doctor Foster to be, first, the present increased rapidity of work, economic conditions which caused the injured individual to fear the loss of his job, poor first aid facilities in the average industrial establishment and the fact that the intelligence quotient of the average worker was 65 per cent of oormal. Doctor Foster described the usual symptoms of both a neurosis and post-concussion syndrome and discussed the treatment, particularly the preventive treatment of the former. He made the interesting statement that in the establishment of the Eastman Kodak Company, where every employee held a small share of the stock of the corporation, that neuroses following trauma were nil.

Doctor Hershey then addressed the Society upon the subject "Hysteria and Malingering." The speaker made a splendid talk. He defined both conditions, differentiated them both and discussed the physiological and psychological factors entering into the etiology of both. He read several case histories to drive home salient points in diagnosis and etiology. Doctor Hershey gave detailed tests to determine diagnosis of both hysteria and malingering.

The President requested Doctor Heavenrich to open the discussion and afterward the discussion was carried on by Doctors MacKenzie, Smith, Fraser and Cooper and also by Attorneys Walsh, O'Sullivan, Telfer and Wilson. Doctors Foster and Hershey then closed the discussion and replied to several pertinent queries made during the discussion. Inasmuch as both the President and Vice President were called away from the meeting the Secretary assumed the Chair and before adjournment thanked the speakers for making the long disagreeable trip from Detroit and for the splendid talks. He also stated to the visiting lawyers that it had been a pleasure to entertain them as guests and expressed the hope that a joint meeting of the Bar with the Society might be arranged soon in the future. Adjournment at 10:30 p. m.

GEORGE M. KESL, *Secretary-Treasurer.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The Bay County Auxiliary met Wednesday, January 25, 1933, at the Wenonah Hotel, Bay City, for dinner. There were 22 members present. The regular business meeting was conducted by the President, Mrs. H. Payne Lawrence.

Dues were discussed and it was decided to leave them as they were last year, $1.50. Last year there were thirty paid members, and we hope to have more this year.

The Auxiliary was addressed by Dr. L. Fernald Foster, secretary of the Bay County Medical Society, and by Dr. George M. Brown. We were encouraged to pick an objective and work for that in order to keep the interest of the members, and to keep ourselves informed on the medical situations which may be discussed in the various circles and to correct any wrong ideas which those outside the profession may have.

RUTH M. ALLEN, *Corresponding Secretary.*

CALHOUN COUNTY

The Auxiliary of the Calhoun County Medical Society launched another year of activity and accomplishment with two days of sewing for Nichols Hospital on January 16 and 17, 1933.

The Congregational ladies donated their parlors for the use of the Auxiliary, and a member also assisted with the sewing. On Tuesday they served luncheon at a nominal sum to all who remained the entire day, which made a pleasant break in what, to the Auxiliary and their friends, is strenuous work, such is the energy they apply to it. At the end of the two day period, four hundred finished garments were turned over to Nicholas Hospital, and a dozen or more which were left over were finished later on at the home of Mrs. M. J. Capron, 102 Ann Avenue, at a neighborhood tea.

Mrs. J. E. Cooper is the chairman of the sewing committee, and tentative plans are already made to sew in the near future for Leila Hospital.

The next meeting of the Auxiliary will be a cooperative dinner at the home of Mrs. Clifford W. Brainard, 204 Chestnut Street, on February 7, 1933. Assisting hostesses are Mrs. Russell Mustard and Mrs. R. D. Sleight. An interesting program will follow the dinner. Wives and doctors from out of town are most cordially invited.

The officers for the coming year are: President, Mrs. Manley J. Capron; Vice-president, Mrs. A. M. Giddings; Second Vice-President, Mrs. Carl Wencke; Secretary, Mrs. J. E. Cooper; Treasurer, Mrs. B. G. Holtom.

Announcement of the plans for the coming year will be made at an early date.

OAKLAND COUNTY

A one o'clock luncheon was served January 20 at St. Joseph's Hospital, Pontiac, to members of the Woman's Auxiliary to the Oakland County Medical Society. The President, Mrs. Hubert Heitsch, conducted the business meeting. After the resignation of Mrs. Morrison of Royal Oak as President-elect, Mrs. Irving Neff of Birmingham was elected to take her place. Mr. Ward Culver of Detroit talked on "Legal Aspects of Medicine." The next monthly meeting will be a social gathering of the doctors and their wives.

Helen C. Baker, *Publicity Chairman.*

WAYNE COUNTY

The Woman's Auxiliary to the Wayne County Medical Society arranged a very desirable program for Tuesday, January 24, when the Wayne County Medical Society and the Woman's Auxiliary had a social joint meeting in the auditorium of the Maccabee's building, 5057 Woodward Ave. Dr. R. D. McClure, surgeon-in-chief at Henry Ford Hospital, showed moving pictures of "The Olive K. and the Voyage of Exploration to Yucatan," including Chas. B. Kettering, Gar Wood, Edgar A. Guest and Dr. Roy D. McClure.

These pictures were not only interesting but fascinating and thrilling, too. Dr. McClure, in his own clever way, explained all their experiences while vacationing together.

The musical program for the evening was presented by our clever and much admired chairman, Mrs. Frank Hartman. Mrs. Hartman presented Thelma von Eisenhauer, soprano, Ethel May De Mart, contralto, with Mrs. Edwin S. Sherrill at the piano. Mrs. Hartman usually shows her appreciation to these artists, who so willingly share their talents with us, by presenting them with a lovely bouquet of flowers.

The auditorium was packed to its capacity. The Auxiliary also hopes to have many more of these joint affairs since this one proved to be so successful.

On Sunday afternoon, January 29, at 3:30 P. M., another musical and social hour, the second in a series planned by the Auxiliary, was given in the Wayne County club rooms, 4421 Woodward Ave.

We are very happy to announce the following persons who furnished us with this delightful music: Mrs. Roland M. Athay, piano soloist; Helen Kennedy Snyder, contralto soloist; Dorothy L. Doub, harpist, and Stella Susnjar, violinist. To the music lovers in Detroit, Mrs. Athay and Helen Kennedy Snyder need no introductions. Their reputations as musicians have been established and their generosity definitely proven. Those who have enjoyed Mrs. Snyder with the Detroit Symphony Orchestra and over the radio were very happy to meet her on this occasion. Miss Doub and Miss Susnjar come to us from the ranks of the younger generation of musicians and possess talents of unusual charm. A charge of twenty-five cents was made at the door. Tea and social hour followed the program.

The proceeds from these musicals will go towards the Student Loan fund, Welfare fund and the Piano fund.

February 1 marked a prominent day on the calendar, when the Woman's Auxiliary to the Wayne County Medical Society joined to celebrate their first Five Dollar ($5.00) Donor De Lux luncheon on the ballroom floor at the Statler Hotel. This was an outstanding affair of the season.

Dr. Leo M. Franklin, from Temple Bethel, guest of honor and speaker, discussed the question, "Shall Science Save or Destroy Our Civilization?"

Science will wipe out civilization rather than war, thinks Dr. Franklin, unless it couples its inventions with moral responsibility. Dr. Franklin advised not to worry about Technocracy and that Science is no substitute for virtue. He said the heart must rule as well as the head. He also said that there is one thing left out and that is religion. He agreed that the world cannot continue as it is and we cannot live alone and unless science would take religion by the hand and say, "Guide me," it is only fit to put in the hands of the man who has learned to control himself, otherwise it is like placing matches in the hands of a baby. Dr. Franklin warned against a science which would fashion a world in which the strong rather than the fit will survive.

Mrs. C. L. Straith, president of the Woman's Auxiliary, presided, introducing Mrs. Perry Burnstine, luncheon chairman, and Mrs. J. Milton Robb, who was a perfect toastmistress. Greetings were brought by Mrs. F. A. Mercier, of Pontiac, and president of the State Auxiliary.

Guests at the speakers' table included Mrs. Guy L. Kiefer, of Lansing, organizer of the Wayne County Auxiliary; Mrs. Elmer L. Whitney, of Detroit, State Vice President; Mrs. R. E. Loucks, of Detroit, chairman of the Public Relations Committee of Wayne County; Mrs. Perry C. Gittins, co-chairman with Mrs. Perry Burnstine of the Ways and Means Committee, of Detroit; Mrs. Frank W. Hartman, Vice-president of the Wayne County Auxiliary; Mrs. James H. Dempster, second Vice President of Wayne County; Mrs. Hubert Heitsch from Pontiac, State Secretary; and Mrs. E. G. Minor, chairman of the State Public Relations Committee.

A one act play was presented under the direction of Mrs. Treesa Way Merrill entitled "Overtures," given by the Paul Hicky Players.

Mrs. A. H. Whittaker, one of our Auxiliary members, very generously rendered two piano selections, which were a Waltz by Brahms and also a Waltz de concert by Chopin.

Mrs. Liebe Schakne sang several solo numbers with Mrs. A. H. Whittaker at the piano. They were as follows—"My Little Star" (Estrallite) by Manuel A. Ponce; "O Cuba" by E. Sanchez De Fuentes and Giannine-mia from the Firefly, by Rudolf Friml.

The Woman's Auxiliary intends to make this Donor party an annual affair. The programs for this Donor luncheon were sketched and made by Mrs. Perry Gittins, who is one of the Auxiliary members and who is also an artist. Mrs. Gittins has sketched many fancy posters for the Wayne County Club rooms.

Mrs. H. D. Chadwick, another member of the Auxiliary, is also a very clever artist. Mrs. Chadwick is planning on giving an exhibition of her art in her home in the near future for the benefit of the Woman's Auxiliary.

The proceeds for the Donor luncheon will be divided among the objectives of the organization under the guidance of the board of directors.

Mrs. Perry Burnstine and her committee deserve a great deal of credit for their untiring efforts in securing this wonderful program for the Donor party and for the pleasure of the Auxiliary and their friends.

The next monthly meeting will be held at the Florence Crittenton Hospital, 1550 Tuxedo Ave., Highland Park, on Tuesday, February 14, at 1 P. M. Holidays are always an incentive for a party, so for that reason the Woman's Auxiliary is planning to make this a Valentine luncheon.

Miss M. Louise Hood, Superintendent of the Florence Crittenton Hospital, will be the guest speaker. She will talk on "Florence Crittenton Work."

Miss Olga Fricker from the Bonstelle School of Dance and Drama will talk on "Dancing for Health

and Beauty," illustrated by the ballet. Luncheon accommodations are limited to ninety persons.

Mrs. C. J. Barone and Mrs. H. J. Hammond will act as hostesses for the afternoon.

The Wayne County Medical Society, asssited by the Woman's Auxiliary to the Wayne County Medical Society, had a booth at the fifth Annual Child Health Institute, which was sponsored by the Detroit Council of Parent-Teacher Association in the auditorium of the J. L. Hudson Company. This exhibition was held from January 23 to January 28.

The Hygeia and Public Relations Committee endeavored to establish connection between the laity and the medical profession.

The program stressed the following: Prenatal Care of the Expectant Mother; Periodical Health Examinations for everybody with special reference to the adolescent period.

The Society had a booth at the Food Show February 18 and is planning to have one also at the Builders' show which will be held some time in March.

Mrs. Leslie T. Henderson, *Publicity Chairman.*

THE DOCTOR'S WIFE

The poets sing in early spring
Of the lover and his lass,
Of budding flowers, tinkling streams,
And verdant blades of grass.

It seems unkind that I cannot find
To save my humble life,
One simple lay to read today
About the doctor's wife.

Perhaps with me you will agree
When I say the doctor's spouse,
If she's like you she has more to do
Than just to mind her house.

She must smile all the while
Her dinner's cold as clay
And warm it up a dozen times
When he calls he's on his way.

She calms her fright when at night
He cures another's ills;
She must be sweet should she meet
One who spurns his bills.

The doc should read or go to seed,
The house is still as death
Children cannot laugh or play
And she 'most holds her breath.

She understands when he holds the hands
And pats a fevered cheek;
She does not blame the pretty dame
Or words of anger speak.

When far too late full many a date
The doctor's wife must shatter,
She must be gay and always say,
"No, dear, it doesn't matter."

There are knocks and bumps, ups and downs,
To be sure it's a merry life,
But answer me this, would you miss
Being YOUR doctor's wife?

Flora Wells Moon.

GENERAL NEWS AND ANNOUNCEMENTS

Dr. E. I. Carr of Lansing, Chairman of the legislative committee, addressed the Bay County Medical Society at Bay City on January 25.

Dr. R. J. Hardstaff of Detroit possesses a rather unique degrec. It is F.R.A.C.S., Fellow of the Royal Australian College of Surgery. Dr. Hardstaff is a graduate of the Toronto University Medical School. He is a native of Devonport, Tasmania, which is a portion of Australia. Dr. Hardstaff has made several visits to his native land since locating in Detroit.

Those who receive Hygeia, published by the American Medical Association, have been impressed with the artistic excellence of the publication, from the colored illustrations on the front page cover through and including the appropriate line and wash drawings that adorn its pages. These illustrations are to a large extent the work of Frances Gorsline Klan, the artist on the American Medical Association staff, who is a daughter of one of the members of the Michigan State Medical Society, Dr. C. S. Gorsline of Battle Creek, Michigan.

The third meeting of the newly formed Michigan Society of Roentgenologists met at the Hurley Hospital, Flint, on the evening of January 26. The speaker was Mr. Herbert Barbour, attorncy for the medico-legal committee of the Michigan State Medical Society. Mr. Barbour spoke of the large factor of X-ray examinations and radiographs in the matter of prosecution and defense in malpractice cases.

The matter of construction of a veterans' administration hospital at Mt. Clemens came up for considcration at Washington on January 17. The project was turned down it was stated on account of the opposition of the American Association. The opposition of the American Medical Association, it is almost needless to repeat here, is based on a thorough knowledge of the needs of the veterans as well as a full realization of the condition of public finances.

PRIVATE OFFICES FOR RENT

$10.00 and $15.00
Per Month

Stenographic, Telephone Switchboard, Elevators, Light, Heat and Janitor Service, included in Rental. All Conveniences. Inspection Invited.

No, these offices are not in Detroit, nor Grand Rapids, nor Flint. This is an ad culled from The Toronto Saturday Night.

OF INTEREST TO DERMATOLOGISTS

The following is a communication received by Dr. George H. Belote, Chairman of the Section on Dermatology and Syphilology of the Michigan State Medical Society, from Dr. Guy Lane of 416 Marlboro Street, Boston, Mass. Dr. Lane is Secretary of the American Board of Dermatology and Syphilology. This communication is here printed at the request of Dr. A. R. Woodburne, Secretary of the Section on Dermatology and Syphilology of the Michigan State Medical Society.

"The American Board of Dermatology and Syphilology desires your coöperation in announcing at your next meeting that the organization of the American Board of Dermatology and Syphilology has been completed and that the Board is prepared to act upon applications for certificates. This Board was authorized in June, 1932, by the American Dermatological Association and the Section on Dermatology and Syphilology of the American Medical Association. Its purpose is to determine standards of fitness for specialists in our field and to

issue a certificate of qualification to each physician complying with the requirements of the Board.

"At the present time the Board desires to receive applications only from those physicians who have limited their practice to this specialty for fifteen years or more, or physicians with a professional rank in Dermatology and Syphilology for five years in a Class A Medical School, or members of the American Dermatological Association. The Board has authorized the issuance of certificates without examination in the first two years to those physicians whose professional training, attainments and prestige entitle them, in the opinion of the Board, to such a certificate. The Board desires to act upon such applications before applications for certificates in other groups are considered.

"Examinations for the other groups will be held in the fall of 1933. Applications for this examination are not desired now, but will be requested later. Due notice of these examinations will be published in the Archives and the Journal of the American Medical Association. Further information and application blanks may be obtained from the secretary."

NORTHERN TRI-STATE MEDICAL ASSOCIATION

The following is the program of the Northern Tri-State Medical Association, to be held at La Porte, Indiana, April 11, 1933.

MORNING SESSION—Civic Auditorium

8:30 A. M.—Fracture Symposium: Paul B. Magnuson, M.D., Prof. Surgery, Northwestern Univ., Chicago, Ill.; Harry E. Mock, M.D., Assoc. Prof. Surg., Northwestern Univ., Chicago, Ill.; R. W. McNealy, M.D., Assoc. Prof. Surg., Northwestern Univ., Chicago, Ill.

9:30 A. M.—Diseases of Parathyroid with Special Reference to Parathyroid Overfunction: Russell M. Wilder, M.D., Mayo Clinic, Rochester, Minn.

10:15 A. M.—Some Diagnostic Points Differentiating Abdominal and Genito-Urinary Diseases: E. Benj. Gillette, M.D., Gillette Clinic, Toledo, Ohio.

11:00 A. M.—The Control of Chronic Intractable Asthma with Pollen: George L. Waldbott, M.D., Detroit, Michigan.

11:45 A. M.—Early Clinical Diagnosis of Diseases of the Mammary Gland: Arthur E. Hertzler, M.D., Prof. Surgery, Univ. Kansas, Kansas City, Mo.

12:30–1:15 P. M.—Luncheon, Civic Auditorium

AFTERNOON SESSION—Civic Auditorium

1:15 P. M.—Other Uses of Digitalis than in the Treatment of Cardiac Decompensation: Henry A. Christian, M.D., Prof. Medicine, Harvard Medical College, Boston, Mass.

2:00 P. M.—Acute Appendicitis with Special Reference to the Delayed Treatment of Advanced Cases: Frederick A. Coller, M.D., Prof. Surgery, Univ. Michigan, Ann Arbor, Mich.

2:45 P. M.—The Management of Hepatic Disease; Charles A. Elliott, M.D., Prof. Medicine, Northwestern Univ., Chicago, Ill.

3:30 P. M.—Headache: Charles Lukens, M.D., Toledo, Ohio.

4:15 P. M.—Newer Methods for the Relief of Prostatic Obstruction: Reed M. Nesbit, M.D., Asst. Prof. Surg., Univ. Michigan, Ann Arbor, Mich.

5:00 P. M.—Acute Vascular Accidents: Plinn F. Morse, M.D., Harper Hospital, Detroit, Michigan.

EVENING SESSION—Hotel Rumely

6:30 P. M.—BANQUET

Address: Neuropsychoses from the Internist's Point of View: Chas. P. Emerson, M.D., Prof. Medicine, Indiana Univ., Indianapolis, Ind.

THE DOCTORS' LIBRARY

THE 1932 YEAR BOOK OF RADIOLOGY. DIAGNOSIS. Edited by Charles A. Waters, M.D., Associate in Roentgenology, Johns Hopkins University; Assistant Visiting Roentgenologist, Johns Hopkins Hospital. Therapeutics. Edited by Ira I. Kaplan, B.Sc., M.D., Director, Division of Cancer, Department of Hospitals, City of New York; Visiting Radiation Therapist, Bellevue Hospital; Director, New York City and Brooklyn Cancer Institutes; Assistant Radium Therapist, Lenox Hill Hospital; Clinical Professor of Surgery, New York University and Bellevue Medical College. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago. Price $6.00. 750 pages.

This is a book for the physician who is either a specialist in roentgenology or whose major interest is in this field. It is in no sense an elementary textbook. In it are discussed all the recent developments in both radiography and radiotherapy, that is X-ray therapy. Perhaps no more competent and discriminating authors could have been found to review and to digest the vast volume of current literature on these two phases of radiology. Dr. Waters discusses the subject of diagnosis as applied to the various systems of the body. Part I includes also chapters on technic, medico-legal and teaching and instruction in the subject of radiography. Dr. Kaplan, in approximately half the volume, discusses the treatment of malignancy as it is apt to occur regionally. We have also chapters on Radiation Biology, The Physics of Radiation, Grenz Ray Therapy, Protracted Radiation Therapy, Cancer Cures, and, perhaps most important, Injuries in Radiation Therapy. We have insisted one cannot be too well prepared or too competent in the practice of either X-ray therapy or diagnosis. We, therefore, welcome a work of such outstanding merit as this. It is also a splendid sample of the bookmakers' art, printed in clear easily readable type, well illustrated and well indexed. It should be a desk handbook of every roentgenologist.

LONGEVITY AFTER CORONARY THROMBOSIS

To illustrate the longevity and physical activity possible after acute coronary occlusion, Paul D. White, Boston, presents the case of a man who died of apoplexy at the age of 80 and showed at necropsy a firm scar in the heart muscle resulting from the healing of an infarct which occurred seventeen and one-half years before. The heart was otherwise in good condition anatomically and so sound functionally that ten years after the heart attack the patient was able to climb a mountain at fast pace without symptoms, at the age of 73 years. The three points of special interest and importance in the case are (1) the patient's longevity, for he survived the acute coronary thrombosis by seventeen and one-half years and lived to the ripe old age of 80 years in spite of it; (2) that when the patient did finally die, his death was not due to heart disease (but to cerebral hemorrhage), and (3) that for many years after the coronary thrombosis the patient was much more strenuous physically than the great majority of men of his age who have no heart trouble at all, and even when he approached his eighteenth year he was able to walk 5 miles a day without trouble if he did not hurry or climb hills. This is a case which may serve not only to demonstrate the wonderfully recuperative power of a seriously injured heart muscle, but also to put hope into the breasts of the many victims of conorary thrombosis, who, having recovered from their acute attacks, still live in dread, waiting for the sword of Damocles to fall in the shape of a second and fatal attack.—*Journal A. M. A.*

The Secretary of the Society will please notify the State Secretary immediately of any errors or change in these offices.

COUNTY SOCIETIES

BRANCHES OF THE MICHIGAN STATE MEDICAL SOCIETY

County	President	Address	Secretaries	Address
ALPENA	L. F. SECRIST	Alpena	WM. B. NEWTON	Alpena
BARRY	R. G. FINNIE	Woodland	K. S. McINTYRE	Hastings
BAY, ARENAC, IOSCO	E. S. HUCKINS	Bay City	L. F. FOSTER	Bay City
BERRIEN	JOHN AMES	Niles	W. C. ELLET	Benton Harbor
BRANCH	KENNETH L. OLMSTED	Coldwater	C. E. MERRITT	Quincy
CALHOUN	CARL G. WENCKE	Battle Creek	HARRY B. KNAPP	Battle Creek
CASS	SAMUEL STEVENS	Dowagiac	S. L. LOUPEE	Dowagiac
CHIPPEWA, MACKINAC	F. J. MOLONEY	St. Ste. Marie	W. F. MERTAUGH	St. Ste. Marie
CLINTON	G. H. FRACE	St. Johns	T. Y. HO	St. Johns
DELTA	L. P. GROOS	Escanaba	A. J. CARLTON	Escanaba
DICKINSON-IRON	GEORGE BOYCE	Iron Mountain	C. P. DRURY	Iron Mountain
EATON	GARNER BYINGTON	Charlotte	BERT VAN ARK	Eaton Rapids
GENESEE	J. C. McGREGOR	Flint	C. W. COLWELL	Flint
GOGEBIC	W. J. PINKERTON	Bessemer	F. L. S. REYNOLDS	Ironwood
GRAND TRAVERSE, LEELANAU	T. W. THOMPSON	Traverse City	E. F. SLADEK	Traverse City
GRATIOT, ISABELLA, CLARE	T. J. CARNEY	Alma	E. M. HIGHFIELD	Alma
HILLSDALE	C. L. HODGE	Reading	D. W. FENTON	Reading
HOUGHTON, BARAGA, KEWEENAW	GEO. McL. WALDIE	Hancock	ARTHUR F. FISCHER	Hancock
HURON-SANILAC	JOHN E. CAMPBELL	Brown City	S. M. TWEEDIE	Sandusky
INGHAM	WM. McNAMARA	Lansing	RUSSELL L. FINCH	Lansing
IONIA, MONTCALM	LLOYD S. DUNKIN	Greenville	JOHN J. McCANN	Ionia
JACKSON	W. L. FINTON	Jackson	R. H. ALTER	Jackson
KALAMAZOO, VAN BUREN, ALLEGAN	W. R. VAUGHAN	Plainwell	R. J. HUBBEL	Kalamazoo
KENT	HENRY J. PYLE	Grand Rapids	JOHN M. WHALEN	Grand Rapids
LAPEER	H. M. BEST	Lapeer	I. R. McBRIDE	North Branch
LENAWEE	C. H. WESTGATE	Morenci	E. C. RAABE	Morenci
LIVINGSTON	GEORGE L. LESLIE	Howell	R. S. ANDERSON	Howell
LUCE	C. B. TOMS	Newberry	GEO. F. SWANSON	Newberry
MACOMB	G. F. MOORE	Mt. Clemens	JOSEPH N. SCHER	Mt. Clemens
MANISTEE	ELLERY A. OAKES	Manistee	ERNEST C. HANSEN	Manistee
MARQUETTE, ALGER	T. R. LAUGHBAUM	Marquette	D. P. HORNBOGEN	Marquette
MASON	L. J. GOULET	Ludington	L. W. SWITZER	Ludington
MECOSTA, OSCEOLA	JAMES B. CAMPBELL	Big Rapids	J. L. BURKART	Big Rapids
MENOMINEE	H. T. SETHNEY	Menominee	W. S. JONES	Menominee
MIDLAND	CHARLES S. MacCALLUM	Midland	E. J. DOUGHER	Midland
MONROE	C. J. GOLINVAUX	Monroe	FLORENCE AMES	Monroe
MUSKEGON	R. J. DOUGLAS	Muskegon	M. E. STONE	Muskegon
NEWAYGO	WILLIS GEERLING	Fremont	W. H. BARNUM	Fremont
NORTHERN MICH. MEDICAL SOCIETY: ANTRIM, CHARLEVOIX, EMMETT, CHEBOYGAN	GILBERT FRANK	Harbor Springs	ERVIN J. BRENNER	East Jordan
OAKLAND	CHARLES A. NEAFIE	Pontiac	DONALD F. HOYT	Pontiac
OCEANA	A. R. HAYTON	Shelby	FRED A. REETZ	Shelby
O. M. C. O. R. O.: OTSEGO, MONTMORENCY, CRAWFORD, OSCODA, ROSCOMMON, OGEMAW	A. S. McDOWELL	West Branch	C. G. CLIPPERT	Grayling
ONTONAGON	H. P. BLAKE	Bergland	E. J. EVANS	Ontonagon
OTTAWA	R. J. WALKER	Saugatuck	W. B. BLOEMENDAL	Grand Haven
SAGINAW	R. M. KEMPTON	Saginaw	W. K. ANDERSON	Saginaw
SCHOOLCRAFT	A. R. TUCKER	Manistique	GEORGE A. SHAW	Manistique
SHIAWASSEE	W. B. FILLINGER	Ovid	W. E. WARD	Owosso
ST. CLAIR	D. J. McCOLL	Port Huron	GEORGE M. KESL	Port Huron
ST. JOSEPH	M. F. PARISH	Sturgis	R. A. SPRINGER	Centreville
TRI-COUNTY, WEXFORD, KALKASKA, MISSAUKEE	W. JOE SMITH	Cadillac	J. F. CARROW	Cadillac
TUSCOLA	O. G. JOHNSON	Mayvil'e	LLOYD L. SAVAGE	Caro
WASHTENAW	S. W. DONALDSON	Ann Arbor	A. C. KERLIKOWSKE	Ann Arbor
WAYNE	H. WELLINGTON YATES	Detroit	E. C. BAUMGARTEN	Detroit

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII APRIL, 1933 No. 4

CONTENTS

Some Important Factors of Postoperative Treatment. Frederick A. Coller, M.D. 211

Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. II. Important Relations of Digestion and Health. Dr. W. B. Cannon 215

The Surgical Treatment of Acute and Chronic Empyema. Stuart W. Harrington, M.D. 224

Tuberculosis of the Skin. Harther L. Keim, M.S., M.D. 228

Mortality in Appendicitis. C. R. Davis, M.D. 235

Chronic Hereditary Edema. David B. Davis, M.D. 237

The Use of Sodium Amytal and Avertin in Obstetrics. W. C. Ellet, M.D. 239

Anti-Rachitic Concentrates. D. J. Barnes, M.D. ... 242

Abdominal Drainage. Arthur C. Henthorn, M.D. 246

Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 247

Editorial:

Post-Graduate Opportunities Brought to Our Door 250

Group Practice 250

Medical Economics:

An Analysis of the Minority Report of the Committee on the Costs of Medical Care. H. W. Plaggemeyer, M.D. 253

Communication 256

Society Activity 257

Proceedings—Annual Conference of County Secretaries Michigan State Medical Society 269

County Societies 299

Woman's Auxiliary 301

General News and Announcements 302

The Doctors' Library 303

Of General Medical and Surgical Interest 305

SOME IMPORTANT FACTORS OF POSTOPERATIVE TREATMENT*

FREDERICK A. COLLER, M.D.

Professor of Surgery, University of Michigan
ANN ARBOR, MICHIGAN

The object of all postoperative treatment is to restore the patient to normal as quickly as possible. The kind and extent of this postoperative treatment will vary with the excellence of the preparation for operation, the region operated upon, and the manner in which the operation is performed. In general there are three basic things necessary for the patient in that immediate period after operation, when the normal physiological processes are disturbed,—water, food and rest.

Water is the principal constituent of the body, composing about 70 per cent of the body weight, and is essential to the life and activity of every cell. In conditions of health it exists in the body in balanced quantities that are automatically and accurately cared for in response to hunger and thirst. In conditions of disease with disturbed physiological processes the water supply is often governed

*From the Department of Surgery, University of Michigan. Read before the Michigan State Medical Society, Kalamazoo, September, 1932.

by the surgeon. To care for these water needs intelligently requires a knowledge of water metabolism and of the water losses and gains of the patient under all circumstances connected with disease. Water is especially concerned with the excretion of waste products through the kidneys and the dissipation of heat through the skin. In health the body holds a fixed amount of water and excretes whatever water is excessive. The study of water balance necessitates the determination and calculation of the four sources of water to the body and the three sources of excretion of water from it.

The intake in health is through the water of the food, the water drunk, the water of oxidation, and the preformed water. The amount of water in ordinary solid food is high. The house diet in the University Hospital yields about 1,000 c.c. a day and the food of the soft diet has a water content of about 500 c.c. a day. This source is a real but varying percentage of the total water intake.

The average daily intake of fluid drunk varies greatly from day to day with many factors. For general consideration one may take about 2,000 c.c. as the average adult intake.

Water is formed by the oxidation of the hydrogen of the foodstuff in proportion to the amount of these materials consumed. The total amount is proportional to the total metabolism and is about 300 grams for persons at light activity.

The preformed water is the body water that is attached to the tissues in the normal manner and is set free when tissue is oxidized. This amount is usually so small as to have no important bearing on the total water balance but in starvation may reach a loss of about 250 grams a day.

Water is lost in the urine, in the feces and through the skin and lungs.

In general the amount of urine voided varies from 800 to 3,000 c.c. daily. The water loss in the feces of normal man is usually not more than 200 c.c., varying ordinarily between 60 and 150 c.c. daily. There is a continuous insensible loss of water from the lungs and skin that is always a large amount and may be the greatest increment even under normal conditions. Studies of this insensible loss at normal activity show this daily loss to average from 1,000 to 1,550 c.c. To this insensible loss a considerable amount may be added by the running away of sweat.

It has long been realized that it is essential to the well being of the patient to maintain the water needs and to prevent dehydration. In order to do this accurately and intelligently the water losses attendant upon disease and surgical procedures must be known. Studies were made to determine the total fluids lost by patients during operation and in the four hour recovery period following operation. The method used has been described in a previous article[1] but consisted, in short, of weighing the patient before and after these periods with the addition and subtraction of known gains or losses. It was found that the total fluid lost during the operation varied with the kind of operation, the length of the operation, and with a number of less important factors of room temperature, anesthesia, amount of covering and the condition of the patient. The fluid lost was by vomiting, by bleeding and insensibly through the skin and lungs. The amount lost by vomiting at this time usually is negligible unless there is a reverse peristalsis associated with some form of intestinal obstruction. The loss of blood is also usually not of any great importance but is almost invariably greater in amount than is believed by the operator. In operations involving large dissections there may be a considerable and important amount lost through continuous oozing from small veins that are disregarded as unimportant. In one notable case, that of a breast amputation, the blood loss was more than a liter. This factor of fluid loss must be kept in mind in certain cases and can be roughly estimated by one with experience. Any blood loss above 700 c.c. may be reflected immediately adversely in the patient's condition. The water lost insensibly was small in amount for operations of short duration such as appendectomy or herniorrhaphy, averaging between 100 and 200 grams. For operations of moderate severity such as uncomplicated cholecystectomy or hysterectomy the total fluid loss during the operation will average about 500 grams and in prolonged operations may reach from 2,000 to 3,000 c.c.

The water lost during the recovery period was also an appreciable amount and was by vomiting, insensibly through the skin and lungs, and by sweating. Two groups were studied, one placed in the usual ether bed with its heavy blankets and hot water bot-

tles, and a second allowed to recover in a bed with a covering of a sheet and blanket. The water loss through the skin and lungs by the patients in the old ether bed was from 500 to 850 c.c., while the water loss of the second group with lighter covering was much smaller, from 100 to 200 c.c. during the four-hour period of study. In general it was found that the fluid lost during this entire period of operation and recovery by a patient on whom a laparotomy had been performed averaged about one liter, the principal loss occurring through the skin and lungs.

It must be emphasized that the body will utilize water to remove heat by evaporation from the skin in its attempt to maintain the body at its constant normal temperature at the expense of water-excreting solids through the kidneys. The much greater amount of fluid lost by avenues other than the kidneys makes it clear that the commonly accepted clinical method of estimating the water balance by a comparison of the fluid intake with the urinary output is so inaccurate as to be worthless to the patient for whom an accurate maintenance of water balance is necessary.

Since in round figures one liter is lost during the operation and the four-hour recovery period, and since we know that there will be a further loss through the skin and lungs during the remainder of the twenty-four hours of at least another liter of insensible loss, we have a definite loss of at least two liters of fluid in the first twenty-four hours suffered by the patient through the skin, lungs and sweat. This factor has seldom been taken into account and if it is added to other known and measureable factors of water loss, it will enable us to give water to our surgical patients with a greater accuracy. The water loss through the skin, lungs and by sweat will of course continue day by day and it is a safe rule to continue the use of this two liter factor as long as the patient is unable to care for his own water needs.

The only element influencing this kind of fluid loss over which we have control is the make-up of the ether bed. The heavy blankets used in most hospitals to cover the patient while recovering from the anesthetic and operation are presumably utilized with the idea of combating shock or pneumonia. It is conceivable that they may play a part in treating the first, but certainly our present ideas as to the etiology of postoperative pulmonary complications do not warrant a continuation of the use of this sweat bed and I believe its use should be relegated to the past along with all of the other once popular dehydrating measures such as purges, and deprivation of food and water. It is much easier to save body fluids than to replace them and infinitely more comfortable and safer for the patient.

Water lost through the skin and lungs contains negligible amounts of inorganic salts and, in the amounts of water lost by these patients, does not represent an important salt loss, therefore normal 5 per cent glucose solution can be used to replace this component of the body fluid loss.

Other very important fluid losses may be sustained by the surgical patient from the gastrointestinal tract, by vomiting, diarrhea or through intestinal fistulæ. All such losses can be measured or closely estimated so that the total fluid loss can be computed in order that it may be accurately replaced. Fluid lost in this manner carries with it sodium and chloride radicals that require replacement, and salt solution must be given through some channel to counterbalance this loss. The total amount of fluids to be given each day to the surgical patient can easily be computed. There is constant loss of at least two liters a day from the lungs and skin to which must be added any losses from the gastrointestinal tract. Any fluid given above this amount will go to the kidneys. The patient with normal kidneys should excrete in the neighborhood of 1,500 c.c. of water daily in order to carry off normal body waste, therefore this amount of fluid should be given over and above the losses already mentioned. If the kidneys are diseased and have lost their concentrating power, fluids much in excess of 1,500 c.c. may be required to carry on excretion properly.

The type of fluid given to the patient is of importance and can be determined from the study of the type of fluids lost. Without going into the minutiæ of the chemical changes, it can be stated that two changes in the chemistry of the body must be anticipated, that is acidosis and alkalosis. In the surgical patient the change called acidosis is due to the presence of the ketogenic acids that lower the alkali reserve, and more accurately perhaps it should be called ketonosis. It is our rule to examine every

specimen of urine during the first forty-eight hours after operation for the presence of these bodies; if they are present, the administration of glucose is indicated. In any patient losing large amounts of fluid from the gastrointestinal tract with its attendant loss of chlorides, one must be on the alert to detect alkalosis. Its extent can be estimated by determining the carbon dioxide combining power, or suspected by finding the urine alkaline, and by determining the blood or urinary chlorides. Its treatment consists in giving chlorides in some form. If blood has been a major fluid loss, a transfusion should be given. Glucose should not be given to the dehydrated patient in hypertonic concentrations since it will abstract fluid rather than restore it. Woodyatt[2] has shown that the glucose can be oxidized in the blood stream in the value of .85 gram per kilogram of body weight per hour without causing glycosuria. There is no utility in giving it faster than this unless it is felt that large amounts of fluids are needed in a short time. I have not seen any evidence that fluids given in the amounts customarily administered to surgical patients have any harmful effect on the cardiovascular system. I do not believe that acute cardiac dilatation or water intoxication is a possibility by giving of the necessary fluids to surgical patients. It would seem, however, that since all methods of giving fluids except by mouth are uncomfortable for the patient, it would be wise to attempt to compute the fluid needs with as great accuracy as possible. The method of administering the fluid will of course vary with the condition of the patient and the type of lesion. Whenever possible, fluids should be given by mouth and whenever fluids are of necessity given by other methods, all efforts must be directed to an early return to the normal manner of taking fluids when the patient can maintain his water balance with his thirst and a pitcher of water.

It is desirable to get the patient on a diet of solid food as soon as the lesion and type of operation will permit. Solid food has a tonic effect on the gastrointestinal tract and helps materially to restore the normal gradient. Ordinarily for the first day or two after operation, a liquid diet is desired by the patient but solids can be added as the patient's appetite returns. Patients passing through a long convalescence, especially those with septic conditions, must be fed with special attention to their caloric needs.

Every patient who has had a major operation is entitled to all the comfort we can give him for the first two postoperative days. Pain should be abolished by the use of opiates given hypodermically during this period. I am impressed by the fact that many patients are allowed to suffer if they do not respond to the surgeon's customary dose of his favorite drug. The opiate should be used until comfort is attained. After this time, continuing pain and discomfort should be carefully investigated as they may be due to a complication that requires other treatment than given. We give opiates altogether too frequently for discomfort due to a constrained position, a too tight bandage, or a wrinkled sheet that can be readily corrected by a little personal attention. Mild sedatives will usually give comfortable nights after the first two days and one should plan on giving them in the late afternoon rather than waiting until half the long night has passed. We often lose sight of the value of sleep to the very sick patient and in our zeal to help him by active treatment we often deprive him of the rest that is so essential to his recovery. Every system of the body is liable to be involved in complications during the trying period between operation and recovery, but every surgical patient will benefit by careful attention paid to the basic demands for food, fluid, and rest.

BIBLIOGRAPHY

1. Coller, Frederick A., and Maddock, Walter G.: Dehydration attendant on surgical operations. J. A. M. A., September 10, 1932, 99:875-879.
2. Woodyatt, R. T., Sansum, W. D., and Wilder, Russel M.: Prolonged and accurately timed intravenous injections of sugar: A preliminary report. J. A. M. A., December 11, 1915, 65:2067-2070.

SOME MODERN EXTENSIONS OF BEAUMONT'S STUDIES ON ALEXIS ST. MARTIN*

II. IMPORTANT RELATIONS OF DIGESTION AND HEALTH

DR. W. B. CANNON
GEORGE HIGGINSON, Professor of Physiology, Harvard Medical School
BOSTON, MASSACHUSETTS

The ancient physicians regarded the heart, the lungs and the brain as the tripod of life, for if any one of these organs fails the vital activities must necessarily fail. It has seemed to me that a proper extension of this idea would make the basis on which the tripod rests the normal functioning of the digestive tract. By means of the digestive processes the energy-yielding material, which is absolutely essential for the functioning of the body, is made serviceable, and when they fail or are deficient in their services all of the rest of the organism is involved. The digestive organs, however, do not constitute an isolated system but are one of a group of related systems. They serve the other systems and are in turn served by them. Thus it is true that not only do the digestive organs suffer when the body suffers but the body suffers in turn when they are disordered.

The most important of the relations of the digestive tract to other systems of the body is, I think you will admit, the relation to the central nervous system. Through the nerve connections between the gastro-intestinal canal and the spinal cord and brain, conditions highly favorable or unfavorable to proper digestion may arise. These connections are provided in the so-called "autonomic nervous system." In order that we may understand clearly its influence on the functions of the digestive organs, it will be well, perhaps, to review briefly some of its characteristics.

As many of you know, the autonomic differs from the cerebrospinal nervous system in being described solely in its outgoing pathways. It innervates striated cardiac muscle, to be sure, but more typically it innervates smooth muscle and glands. It supplies the walls of blood vessels, the bladder, the uterus, the stomach and intestines, the liver, pancreas and salivary glands, the bronchioles—in short, the viscera and vascular and respiratory channels.

Another important feature in the organization of the autonomic system is the presence in the outgoing pathway of at least one neurone, outside the central nervous axis, that is interposed between the neurones of the central axis and the innervated structure. Further, the cerebrospinal nerves reaching forth to these outlying neurones are divisible into three groups: the cranial and the sacral, arising, as indicated by the terms, from the brain and from the sacral portion of the spinal cord; and the thoracolumbar, arising from the spinal cord between the brachial and sacral enlargements. The last is the sympathetic division, or the true "sympathetic system," as distinguished from the cranial and the sacral, or parasympathetic, divisions. In the sympathetic division the cerebrospinal nerves (the white rami) pass out on either side of the spinal column to a chain of ganglia, extending from the superior cervical ganglion high in the neck to fused ganglia in the pelvis. These ganglia are the seat of the cell bodies of the outlying neurones of this division. The fibers passing out from the ganglia to smooth muscle and glands are called "postganglionic fibers." They are widely distributed all over the body, to arterioles, to sweat glands, to hair muscles, to the genitourinary tract, and to all parts of the alimentary canal and its glandular accessories.

The fibers of the white rami, connecting the central nervous axis with the sympathetic ganglia, are designated "preganglionic fibers." A peculiar feature of the arrangement of these fibers is that they not only reach to the nearest ganglion from their source, but pass through that one to neighboring ganglia up and down the chain, giving off collateral branches in each one. This arrangement of the preganglionic fibers results in an interlacing of their distribution. In any ganglia there may be ax-

*Beaumont lecture delivered before the Wayne County Medical Society, January 31, 1933.

ones from four or five different segments of the spinal cord; or, to put it differently, axones from any segment of the cord may pass through four or five different ganglia of the sympathetic chain, connecting the ganglia with one another and at the same time distributing to outlying neurones in each one. This mode of organization has two effects; it greatly increases the range of distribution of impulses coming out along any single fiber, and it also provides for diffuse distribution of impulses throughout the organism.

Associated with the sympathetic system is the adrenal medulla which is innervated by nerves from that system. When the sympathetic division is stimuluated, in great excitement, for example, there is a discharge of adrenin from the adrenal medulla into the blood stream. The circulating blood gives adrenin a diffuse distribution. Since this chemical agent has almost everywhere in the body the same effects as sympathetic impulses, it is clear that the arrangement of the sympathetic neurones for diffuse activity is supported by the diffuse distribution of adrenin. We may speak, therefore, of a sympathico-adrenal coöperation, with an activity diffusely effective.

A distinguishing feature of the sacral and cranial divisions of the autonomic system is that the preganglionic fibers of their outflow pass directly to the neighborhood of the organs innervated, or into them, and therefore have a distinct and discriminating rather than a diffuse influence. Thus the third cranial nerve reaches to the eye, the chorda tympani to the submaxillary gland, the vagus to the heart and the stomach, before finding a relay in the outlying neurone. It is usually true also that when representatives of either the cranial or sacral division meet in any organ the representatives of the sympathetic division, they are opposed in action. Thus the sympathetic impulses accelerate the heart, and the vagal impulses (from cranial sources) check or inhibit the heart. Exceptions to this general rule we shall note later.

As we continue our discussion we shall have repeated occasion to refer back to the rôle of the autonomic system in the regulation of the functions of the digestive organs, for these functions, as we all know, are carried on by smooth muscle and glands.

It must not be supposed that the extrinsic nerves connecting the alimentary tract with the central nervous system are essential for its functions. Just as the heart will continue its services as a pump and keep the circulation going although both of its external nervous connections, sympathetic and vagal, have been severed, so likewise the alimentary tract is capable of carrying on its activities without external nervous control. Many years ago Hofmeister and Schutz wrote a rather elaborate paper on the movements of the stomach, excised, removed from the body, and observed in a moist chamber. The peristaltic waves went on in a quite normal fashion. Similarly, in 1906, I reported X-ray observations on the functioning of the gastro-intestinal canal after the vagus nerves and splanchnic branches of the sympathetic division had been severed, so that the stomach and small intestine were deprived of any extrinsic control. If, then, the digestive organs are capable of carrying on their functions in the absence of nervous government, the question arises as to the utility of these nerves. I hope to present evidence to you in this and the next lecture that the rôle of the extrinsic nerves, insofar as the motor activities of the tract are concerned, is that of affecting the "tone" of the smooth muscle of its walls. The word "tone," or "tonus," or "tonicity" is one that is rather loosely employed both by practicing physicians and professional physiologists. We should understand definitely what we mean when we employ it.

It seems to me that the word "tone" signifies, at least in its unqualified, physiological use, a persistent moderate degree of activity. Thus we speak of vasomotor tone or vascular tone as a continuous control over the blood vessels, of such degree that it can be varied in either direction—the tone can be increased by stimulating a pressor nerve or can be reduced by stimulating the depressor nerve. Likewise, we speak of the vagus nerve as exercising a tonic control over the beat of the heart, keeping the rate steadily, unless disturbed, at an intermediate level between great rapidity and extreme slowness. By increasing the vagal tone the heart is made to beat more slowly; by decreasing the vagal tone it is made to beat more rapidly. When this idea is applied to the control of skeletal muscle it becomes somewhat more precise. We understand by the tone of skeletal muscle the continuous moderate *tension* in which it is held so long as it has its proper nerve supply. This tension makes

the difference between the "feel" of a muscle which is normally innervated and one that has lost its nerve connections, or the difference between the feel of the muscles in the living and in the dead body. But the word "tone" may be extended still further and may be applied to the body as a whole. Thus we may speak of the state of health as being a state of tonic well-being. Definitions of health are not satisfactory. Perhaps as good a concept of health as any is that of a state in which, with basal conditions of bodily activity, the functions of various organs essential for existence continue at a moderate rate, and in which the stress of great effort can be met without failure of prompt return to the former rate. The basal metabolism, with its attendant slow cardiac and respiratory rate, has familiarized us with this concept. You will recognize that it is similar to the concept of "tone" as a state of persistent moderate activity, in quiet conditions, that can be varied in either direction—increased or decreased. But we have wandered far from our starting point. When I use the word "tone" in describing the effects of the extrinsic nerves of the alimentary canal on its musculature, I shall employ it in its narrower sense of indicating the continuous degree of tension which this musculature is exhibiting. With this explanatory preparation we may proceed to consider the rôle of the extrinsic nerves of the alimentary tract, and in the present lecture, specifically, the vagal and the sacral nerves, as representatives of the parasympathetic divisions.

The two vagus nerves are distributed throughout the alimentary canal from its beginning in the upper esophagus to the end of the small intestine. We shall restrict our interest to the effects which they have on that portion of the tract which is composed of smooth muscle. The literature on the influence of the vagi on the functions of the esophagus, the stomach and the intestines presents us with many confusing results. A great variety of effects have been reported as a consequence of stimulating these nerves at various points in their course. Some of these incongruous results can be explained as a consequence of what may be called "induction coil" physiology. By that I mean that artificial electrical stimuli have been applied to a complex neuromuscular organization and the effects thus produced have been assumed to demonstrate the function of the structure stimulated. The effects are correct enough for the conditions which prevail at the time, but in my opinion they have nothing but suggestive value as to the true physiological service of the impulses which the nerve fibers normally convey. Thus, for example, Veach, in the Harvard Physiological Laboratory, found that when he applied stimuli of low frequencies and intensities to the vagus trunks, they produced contractions in the esophageal and gastric muscle which they innervated; and when he applied high frequencies and intensities quite the opposite effect was produced. Indeed, he was able to stimulate contraction with one vagus nerve and produce inhibition with the other by means of such artificial stimulation. Such evidence must always be checked by direct observation of the rôle played by the nerves under natural conditions, and after removal of their influence. It is this latter sort of evidence which I wish to bring before you. Since the situation was simpler and more decisive in observations made on the lower part of the esophagus, I shall describe the experiments made on that region in some detail. The facts brought out thereby will be applicable to other parts of the alimentary tract.

Almost one hundred years ago Reid declared that severance of the vagus nerves results in a paralysis of the esophagus and a failure of deglutition. This doctrine came down through the decades until fairly recent time. Two important considerations were overlooked by Reid. First, the difference between the immediate effects of vagus section and the later possible recovery, and second, the fact that in many animals the lower half of the thoracic esophagus is composed of smooth muscle.

In 1907 I had occasion to note that for some time after severance of the vagus nerves there is a total absence of peristalsis in the esophagus, and that this paralyzed state was followed by a gradual and remarkable restoration of function in the part of the tube which is composed of smooth muscle. Immediately after the operation and for twenty-four hours, at least, thereafter, it is easy to demonstrate complete inaction. By means of the X-rays the food which was forced onward into the gullet by the intact upper portion was seen in one instance to stagnate in the thoracic part for five hours, and in another instance for seven hours after the feeding. As bolus after bo-

lus was swallowed the thoracic esophagus became filled with a distending mass which bulged its walls outward until it had a sack-like form. Continuous observation revealed no sign of activity. In short, as a consequence of removal of vagal influence, the esophagus had utterly lost all muscular tone —it relaxed to the limit without any tensile or contractile reaction. The next day the accumulated mass had disappeared. Now food mixed with subnitrate of bismuth was again given repeatedly. When the thoracic esophagus had been distended to approximately twice its normal diameter (*i.e.*, not so much as on the day before), a constriction of the wall in the lower portion, where smooth muscle was present, occurred and moved towards the stomach. This was followed by other peristaltic constrictions moving downward. Gradually these recurring waves pushed food into the stomach until the amount present was considerably reduced. On the third day the experiment was repeated and then it was found that the esophagus need be only slightly distended before the peristaltic wave started and effectively pushed the mass above it through the cardia.

A review of these observations brings out the fact that an important condition for the arousing peristaltic activity in the lower esophagus is the stretching of the muscular wall. A slender mass of food spread along the denervated tube may lie for some time unmoved. An addition to the first mass, that causes a stretching of the wall, results in the instant appearance of peristaltic waves. Similarly, after repeated reductions have rendered the strand of food more attenuated, it lies for longer periods unaffected by esophageal contractions. As time elapses after severance of the vagus nerves the smooth muscle of the esophagus becomes more responsive to the presence of contained material, for the material is driven into the stomach with increasing rapidity and even slender masses are sufficient cause for peristalsis. Apparently the recovery of this functional activity is due to a restoration in some manner of the tone of the smooth muscle—a moderate contraction so that it has a capacity for exhibiting tension when stretched—a capacity ordinarily maintained by vagus influences but gradually developed intrinsically when those influences are lost.

An effect similar to that observed in the esophagus may be observed also in the stomach after severance of the vagus supply. The condition there differs in one important respect, however, for, whereas in the esophagus the vagus control is not opposed by sympathetic control, in the stomach the two sets of nerves, vagi and sympathetic, are both present. In order to determine the function of the vagi alone, therefore, it is necessary to be rid of the sympathetic nerves previously. When this condition has been met, removal of vagal influence results in a marked depression of peristaltic activity. For some hours after the nerves have been severed and the animals thereafter have been fed (by stomach tube), the food may lie in the stomach wholly undisturbed by peristalsis; and often when the peristaltic waves begin under these circumstances and are running at their normal rhythm, they are characterized by being extremely shallow. Sometimes they are hardly visible. At other times they can be seen only near the pylorus. As days pass, these abnormalities largely disappear and thereafter the waves start at the usual time after a meal and have much of their normal vigor. These observations, reported in 1906, have been confirmed by Borchers, who reported that only after five days were the normal conditions fully restored. They have also been confirmed by M'Crea, M'Swiney and Stopford. Although these investigators attributed the dilation and signs of paralysis, with delay of all motor functions immediately after vagus section and recovery only after seven to ten days, as due to "shock"—a term which they do not define—they seem to have overlooked entirely the evidence which had been reported that severance of the vagi leads to the absence of tone in smooth muscle and that only gradually is an intrinsic tone recovered.

The similarity between the effects of vagus section on the stomach and on the esophagus is noteworthy. As we have seen, the immediate effect on the esophagus of cutting these nerves is paralysis. The food stagnates in the tube for hours, distending its walls, but the atonic muscle makes no response. As time passes and the musculature of the esophageal wall recovers the tonic state which the vagi formerly maintained, it simultaneously recovers its capacity to respond to the contents which stretch it, and thereupon effective peristalsis is restored. In the stomach, likewise, there is an extraordinary development of an intrinsic tone

after the sympathetic nerves and the vagi have been severed. Under these conditions, the resting stomach of the cat, for example, may contract to a diameter of only 2 cm. or less, a smallness of size almost incredible. When this degree of inherent tonicity has been developed, the conditions provided by the vagi have been restored or perhaps somewhat exceeded, and the stomach is then capable of exhibiting its normal peristaltic waves.

We are now in a position to summarize the outstanding natural functions of the vagus nerves with reference to the smooth muscle of the esophageal and gastric walls. These nerves are not "motor nerves," as is sometimes said, but at proper times they exercise a continuing positive influence, an influence which causes the muscle to exert a tension and which therefore is a condition for rhythmic contractions. If the tonic activity of the vagi is increased the vigor of peristaltic contractions increases. If the nerves are severed muscular tone is temporarily lost, the activities of the tract are for some time in abeyance, and even when peristalsis reappears the rings of contraction are at first shallow. This recovery of peristaltic activity is associated with the development of an intrinsic tonic state in the smooth muscle itself. We may conclude, therefore, that the most important natural function of the vagi is that of setting the muscles in continuous moderate contraction, of making them press on the material which they surround, so that in relation to the gastric contents, for example, the muscles are as if stretched by those contents.

From what I have said regarding the service of the vagus nerves in maintaining tonicity of the gastric musculature I do not wish to be understood as denying the presence in the vagus trunks of fibers which on occasion have an inhibitory action. The vagi must be recognized as compound nerves. In relation to the stomach their chief function, causing in the gastric wall a state of moderate contraction, may produce, while digestion is going on in the organ, a considerable intra-gastric pressure. Suppose, now, that while gastric digestion is in progress one desires to swallow more food. It is clear that if there were no other arrangement the muscles of the esophagus would have to force the food bolus into the stomach against the pressure existing there. It happens, however, that a very beautiful adjustment obviates that necessity. In 1911 Lieb and I found that whenever a swallowing movement occurs the intra-gastric pressure drops gradually almost to zero. The fall starts between 2 and 5 seconds after the larynx is lifted in the act of deglutition, and reaches its lowest point (in the cat) between 6 and 10 seconds after the bolus leaves the mouth. The admirable character of this receptive relaxation of the stomach can be appreciated if we recall that the time required for a bolus to be carried through the cat's esophagus varies between 7 and 10 seconds. Thus whenever a tonic state of the gastric musculature has raised intra-gastric pressure, an automatic mechanism exists for lowering that pressure while the esophagus is pushing new material into the stomach. This reciprocal adjustment between the esophageal muscle and the gastric muscle wholly disappears after the vagus nerves have been severed. These nerves, therefore, not only have fibers for the conveyance of tonic impulses, but also fibers for inhibitory impulses.

The vagus nerves are described as being distributed throughout the small intestine from the pyloric to the ileocecal sphincter. It appears that these nerves exercise on the small gut, as well as on the lower esophagus and stomach, a tonic influence. After complete severance of the splanchnic nerves I observed that the rate of passage of a standard food through the small intestine was much accelerated, whereas after the vagi were cut the passage was slower than usual. This is the result which might have been anticipated if the vagi had been assumed to have the same tonic effect on the musculature of the intestine as on the stomach.

In connection with the extrinsic innervation of the intestine it is of interest to note that Langley has reported that the vagi have a diminishing influence in the course of their distribution along the small intestine. This statement is related in an interesting way to observations which were made in the Harvard Physiological Laboratory in 1914 by Alvarez. He studied the rate of contraction of segments of the small intestine of the rabbit, taken from different parts of its extent. His experiments showed quite clearly that the segments from the duodenum exhibited a much more rapid rhythm than those taken from the lower ileum; roughly the rate varied inversely as the distance from the pylorus. Furthermore, the segments from the

upper intestine were less inhibited by adrenalin and recovered from the inhibition more rapidly than those from the lower portions. Later studies by Alvarez have brought out other interesting facts, indicating a descending gradient of activity along the small intestine—a gradient not only in the rate of the excised segments but a gradient in carbon dioxide output, in irritability, in tonic contraction and in the brevity of the latent period. I had noticed earlier that the food, after passing out of the pylorus and being churned in the first part of the duodenum, was carried thence, much more rapidly than anywhere else, to distant parts of the gut. It seemed to me that this observation was related to the fact which seems to have been observed by the early anatomists when they gave the term "jejunum" to this part of the small intestine, for if it is more active than other parts it must, of course, rapidly empty itself.

Although the observations made by Alvarez did not involve the functioning of the vagus nerves, because the intestinal segments studied by him were removed from the body, it appears not improbable that any natural capacity of the intestine to act with greater speed at its upper than at its lower end would be favored by the attendant descending gradient of vagal influence mentioned by Langley. This suggestion is supported by the evidence already mentioned that when, after the splanchnics are out of the way, the vagi are cut, the passage of food through the small intestine is greatly delayed.

The large intestine, as previously stated, receives its tonic innervation through the sacral visceral nerves, stimulation of which causes contraction of the colonic wall. The extent of the distribution in man, so far as I am aware, has not yet been determined. In the cat, however, these nerves serve only the distal two-thirds of the colon. The stimulation of the nerves causes an increase in the tone of the mid-region as a first effect. Continued stimulation results in shortening of the strong longitudinal muscular coat of the distal half of the colon, and thereafter a deep contraction of the circular coat which moves downward in a manner characteristic of natural evacuation of the bowel. Section of the nerves results in changes which are typical of lack of tone; the feces accumulate and the contractions of the gut are sluggish and weak. These observations, made by Elliott and Barclay-Smith, were unfortunately not preceded by section of the sympathetic supply and therefore indicate merely that the sacral visceral nerves offer a tonic opposition to the inhibitory sympathetic influences.

The importance of tone for peristalsis, first noted in the esophagus, was clearly confirmed in observations made of the reversed waves of the proximal colon of the cat. If this region is relaxed and inactive, painting the gut at the junction of its first and middle third with barium chloride will cause a tonic constriction to form there. While this circular muscle is in maximal contraction it has no influence on neighboring parts. When it partially relaxes, however, it begins to contract rhythmically, and at each contraction it sends off a peristaltic wave. If the material on either side is of fluid consistency, waves may pass away in both directions. If the material is fluid only on the proximal side, the recurring waves are solely anti-peristaltic, i.e., towards the cecum. The interest of this observation lies in the facts that the sacral visceral nerves establish a tonic state in the middle third of the colon, just where the tonic ring was artificially caused by barium chloride, and that the reversed waves sweeping over the proximal region are dependent on a tonic contraction in that region.

Perhaps a word of warning should be given here to the effect that the reversed peristalsis, observed as a normal phenomenon in lower animals, has not been observed in man. Although in human cases there is clear evidence of a movement of material backward towards the cecum, the actual occurrence of waves to produce this effect has not been seen. The main reason for mentioning the evidence for these natural reversed waves in the cat and dog is to emphasize once more the importance of tonus for the movements of the alimentary canal.

Alvarez has called attention to the possibility of a pathological reversal of the descending gradient in the small intestine. Just as barium chloride solution painted on the colon establishes a center of activity and a source of peristaltic waves, so likewise, he infers, irritation by an inflammatory state, for example, in the lower ileum, may make that region a center of activity and thus reverse the gradient. In such manner Alvarez would account for the evidence that in path-

ological states there may be actually a passage of the intestinal contents in a direction opposite to the normal.

Related to the tonic state of the colon is the function of defecation. In man the changes which occur in the performance of this function have been studied and described particularly by Hertz, who used the roentgen rays in his examinations. Hertz's tracings show that the entire large intestine below the splenic flexure is normally evacuated in a single act. Thereafter, usually during the next twenty-four hours, waste material accumulates in the distal colon. It first stops at the junction between the pelvic colon and the rectum where an acute angle seems to offer some obstruction to progress. Gradually the pelvic colon fills from this point upwards, and as more material arrives it gathers progressively in the iliac and descending colon. On becoming distended the pelvic colon rises and widens its acute angle with the rectum, thus removing the obstruction to the advancement of the fecal matter. When some of this matter enters the rectum the desire to defecate occurs. The usual performance of the act regularly after breakfast is probably due, at least in part, to stimulation of peristalsis in the colon by taking food—probably a tonic effect—though the muscular activities which attend rising and dressing probably play an additional rôle. If these conditions do not result in the natural "desire to defecate" voluntary contraction of the muscles surrounding the abdominal cavity may cause some feces to enter the rectum and thus evoke the call.

When the call for defecation has come the further performance of the act is commonly attended by increased intra-abdominal pressure, a result of voluntary contraction of the abdominal muscles and the diaphragm. As the diaphragm contracts, the entire transverse colon is pushed downward and the ascending colon and cecum are forced into an almost globular form. Intra-abdominal pressure, as measured in the rectum during this stage, may rise to between four and eight times the normal—i.e., it may be between 100 and 200 mm. of mercury. The pressure causes more feces to enter and distend the rectum and the anal canal. The distension of these parts now arouses reflexes which start strong peristaltic contractions of the colon, continues the tendency to strain the voluntary muscles, and produces relaxation of both anal sphincters. Although, as I have described the process, it involves voluntary factors, we should recognize that such factors are not requisite, for the act can be perfectly performed by animals with the spinal cord severed, including man.

The relation of tone to the important function of ridding the body of waste from the ingested food lies in the fact that only when there is a tonic shortening of the smooth muscle of the rectum is it stretched. The stretching sets up the reflexes which cause it to contract and empty out the contents. If the lower spinal cord is destroyed or the sacral visceral nerves are severed, feces accumulate and the contractions of the gut are sluggish and weak, at least until there is a recovery of intrinsic tone by the rectal muscles. Now for the moral of this story! Observations on man have shown that, if the call for defecation is not responded to, the rectum may accommodate itself to the presence of fecal accumulation. A feature of this condition may be a lessened sensitiveness of the afferent nerves from the region. Perhaps a more important condition is a lessened tone of the smooth muscle so that the accumulated mass no longer produces the normal stimulus of stretching. In any case, under these circumstances, the call for defecation may disappear. Thus if the signal for emptying the rectum is not promptly obeyed, it may cease to be given. The feces may then remain there for a long period without calling forth sensations, and the efficacy of the reflex may be largely impaired.

What I have said thus far regarding the influence of the vagal and the sacral visceral nerves as representative of the parasympathetic supply of the gastro-intestinal tract may seem only remotely related to the title of this lecture, "Important Relations of Digestion and Health." All that has been said, however, is in fact closely related to it. The reason for confidently making that statement is that the parasympathetic nerves share with the rest of the body in any debilitating illness. For example, while the vagal connections between the alimentary canal and the central nervous system are intact, the asthenia, associated with general infection and characterized by soft toneless skeletal muscles, is associated also with a toneless state of the musculature of the stomach and intestines. Animals in such a

state have been observed repeatedly with the X-rays, and throughout a whole day the food has been seen lying in the stomach without the slightest sign of a peristaltic wave affecting it; or food that had entered the intestine was seen to be similarly unaffected by any motions of the gut. The animals manifest no signs of appetite and they do not eat spontaneously. From what we know of the vagus influence on the muscles of the canal, we may assume that the indolence or total inactivity of the muscular wall is due to lack of the tone necessary for peristalsis. In this connection it is of interest to know that when the stomach has been wholly disconnected from the spinal cord and brain and has acquired its own inherent or intrinsic tonic state, independent of any outside influence, peristalsis is not affected by the general debility of the organism as a whole.

The observations made on lower animals are easily duplicated in man. Alvarez speaks of autopsies on people who have died from botulism, in whose stomachs has been found food which had been eaten many days before, when the trouble commenced. Similar stagnation is often noticed in the stomachs of men and women suffering from tuberculosis and other infectious diseases. It is a tribute to his sure vision that Beaumont noted a similar phenomenon in his studies on St. Martin. Occasionally he observed a pathological appearance of the stomach associated with symptoms of general bodily disorder such as dryness of the mouth, thirst, exaggerated pulse, etc. Under these circumstances, he states, "no gastric juice can be extracted, not even on the application of alimentary stimulus . . . food taken in this condition of the stomach remains undigested for 24 or 48 hours, or more, increasing the derangement of the whole alimentary canal, and aggravating the general symptoms of the disease." Thus on one occasion (experiment 10 of the third series), when St. Martin "complained of headache, lassitude, dull pains in the left side, and across the breast—tongue furred, with a thin, yellowish coat, and inclined to dryness—eyes heavy, and countenance sallow," Beaumont reports the stomach still full of food six hours after a small breakfast of fried sausage, dry toast and a pot of coffee. About three hours later Beaumont suspended a roasted oyster in the stomach and his patient ate twelve more of them. After two hours he found, on withdrawing the suspended oyster, that it was not half digested. It is evident that the symptoms of general indisposition were associated with a marked disturbance of the processes of the stomach.

Not only debilitating disease but also exhausting labor is associated with failure of proper action of the digestive organs. In a man with a fistula Mantelli noted that for an hour or two after strenuous muscular exertion the stomach did not respond normally to the actual presence of food.

In addition to the effect of the vagi on the musculature of the alimentary canal, there is the effect of these nerves, and of associated nerves (which govern the salivary glands), on the digestive secretions. Many years ago Pavlov reported that in addition to the well-known psychic secretion of saliva there is also a psychic secretion of the gastric juice—a secretion due to the pleasant taste of food, that is, to the satisfaction of appetite. Later it was found that there is a similar secretion of the pancreatic juice. The psychic secretion from the stomach and pancreas is dependent upon the vagus nerve supply. This immediate psychic secretion is serviceable, of course, in starting off the digestive process in a satisfactory manner. In 1911 I suggested that attendant on the psychic secretion from the digestive glands there might be in the gastro-intestinal tract, when food is relished in anticipation or at the time it is eaten, a psychic increase of muscular tone, both being consequences of vagal excitation. This suggestion was associated at the time with the evidence that severance of the vagi *before* introduction of food into the stomach was not followed by gastric peristalsis; whereas, if the vagi were severed shortly *after* food was taken, the digestion at that particular meal was not seriously interfered with. It seemed, therefore, that the pleasurable eating of food was associated with some influence of the vagi on the gastric muscle similar to the influence of the vagi on the gastric secretion when food is ingested.

The foregoing evidence for psychic tonus has been supported by Alvarez. He had a patient with a large ventral hernia; such that the bowel was so thinly covered by peritoneum and skin that its contractions could be easily seen. When a nurse brought food, a peristaltic wave rushed down the bowel and was followed by active kneading move-

ments. Hurst and also Lüdin have noted that a barium meal will pass along the gut faster if it is followed by a second meal given a short time after the first. The second meal would serve under these circumstances to increase the tone at the upper end of the intestinal tube. Observers have stated, furthermore, that contrast meals leave the stomach more rapidly if they are made palatable; and Alvarez again has noted in a patient with a jejunal fistula that the contractions of the bowels were more active when the patient ate by himself than when he was plainly annoyed by being fed by the nurse. Another patient, described by Alvarez, had an incompetent anal sphincter; he had to be extremely careful about eating, seeing, smelling, or even thinking about the pleasures of food, because of the stimulating psychic effects on peristalsis, and therefore on the tone of the intestinal musculature.

All these observations point clearly to the important relationships between the proper functioning of the gastro-intestinal tract and the general state of the organism. If the tract functions satisfactorily the energy-yielding food which is taken in by mouth and chewed and swallowed, becomes a means of supporting all of the activities of the organism in a highly efficient manner. If there is any interference with the digestive processes this influx of energy for bodily functions is interfered with and the whole organism suffers in consequence. On the other hand, if there is a debilitated or asthenic state as a consequence of exhaustion, whether from over-work or prolonged disease or acute infection, so that that moderate degree of activity which we have called tone is greatly reduced, the tonic state of the gastro-intestinal tract shares the tonelessness of the rest of the body; and as a result the organism is not able to carry on vigorously the processes of digestion. It is clear that under these circumstances a vicious circle may be established so that the debilitated organism does not receive the nutriment which is necessary for its upbuilding. In the past the careful physician has broken into this vicious circle by giving food which is easily digested and therefore requires minimal functioning of the digestive organs. At present, certainly in cases of inanition or malnutrition, it is possible to break into the vicious circle by means of insulin, which, by stimulating vagal tone and helping towards a better utilization of the absorbed food, definitely favors the restoration of the normal state.

At the beginning of this lecture I had occasion to outline the organization of the autonomic nervous system. Throughout the lecture I have referred repeatedly to the rôle of the vagal and sacral nerves as representatives of the parasympathetic divisions of that system. We may summarize the functions of the sacral division as a whole by the statement that they consist of a group of reflexes for emptying hollow organs which are periodically filled. Notable among these are the rectum and distal colon, and also the urinary bladder. The effective stimulus for contraction of both these viscera is the stretching of the tonically contracted viscus by accumulating contents. The functions of the cranial division likewise can be summarized as mainly a group of reflexes, but reflexes which are protective, conservative and upbuilding in their service. Thus the autonomic fibers of the third nerve narrow the pupil and protect the retina from excessive light. Other representatives of the cranial autonomic, associated with the seventh and ninth cranial nerves, provide for the flow of saliva. The tenth nerves (the vagi), as we have seen, carry the impulses for psychic secretion of the gastric and pancreatic juices and for establishment of the tonic state necessary for the periodic contractions of the alimentary tract. These nerves of the cranial division illustrate strikingly its upbuilding function, for they assure the essential basis for the proper digestion and for the absorption of the energy-yielding material which is required for all bodily activity.

These two divisions, the sacral and cranial, are similar in being largely subject to interference by striated muscle. Contraction of the bladder and rectum can be aided or frustrated by impulses from the cerebral cortex much as reactions of the iris can be induced or modified by voluntary acts. Indeed, as a rule, the workings of the cranial and sacral divisions on the digestive tract involve the coöperation of the cerebrospinal nervous system to a much greater degree than do the workings of the sympathetic division, because the cranial and the sacral are much concerned with orifices surrounded by striated muscles, at both ends of the tract. Thus food may be voluntarily swallowed in excessive amounts, so that the

stomach is grossly distended; and when waste from the food is ready to be discarded, it may be voluntarily retained. It is because of this control of orificial functions by the cortex that the natural activities of the neighboring smooth muscle, under autonomic control, are not infrequently disturbed or subjected to unfavorable conditions. At our next meeting we shall see that the sympathetic division likewise may profoundly influence the functioning of the alimentary tract, not, however, because of cortical influence but because of emotional effects originating in sub-cortical regions.

REFERENCES

Alvarez, W. C.: Functional Variations of Contractions of Different Parts of the Small Intestine. Am. Jour. Physiol., 1914, xxxv, 177.

Alvarez, W. C.: The Mechanics of the Digestive Tract. New York, 1929.

Beaumont, W.: Experiments and Observations on the Gastric Juice and the Physiology of Digestion. Plattsburgh, 1833.

Borchers, E.: Die Aussichten der Behandlung von Motilitätsstörungen des Magens durch Vagusunterbrechung. Deutsch. Zeitschr. f. Chir., 1921, clxii, 19.

Cannon, W. B.: The Motor Activities of the Stomach and Small Intestine after Splanchnic and Vagus Section Am. Jour. Physiol., 1906, xvii, 429.

Cannon, W. B.: Esophageal Peristalsis after Bilateral Vagotomy. Am. Jour. Physiol., 1907, xix, 436.

Cannon, W. B.: The Mechanical Factors of Digestion. London, 1911.

Cannon, W. B.: The Importance of Tonus for the Movements of the Alimentary Canal. Arch. Int. Med., 1911, viii, 417.

Cannon, W. B., and Lieb, C. W.: The Receptive Relaxation of the Stomach. Am. Jour. Physiol., 1911, xxvii, 13.

Hertz, A. F.: Common Fallacies in the X-ray Diagnosis of Disorders of the Alimentary Canal. Arch. Röntg. Ray, 1912, xvii, 216.

Hertz, A. F.: Constipation and Allied Intestinal Disorders. London, 1909.

Hofmeister, F., and Schutz, E.: Uber die automatischen Bewegungen des Magens. Arch. f. exper. Path. u. Pharmakol., 1885, xx, 1.

Langley, J. N.: The Sympathetic and Other Related Systems of Nerves. Schäfer's Texthook of Physiology, London, 1900, ii, 618.

Langley, J. N.: Das sympathische und verwandte nervöse Systeme des Wirbeltiere. Ergebn. d. Physiol., 1903, ii, 2, 832.

Ludin, M.: Der Einfluss von Zwischenmahlzeiten hei der röntgenologischen Prüfung der Magenmotilität. Deutsch. med. Wochenschr., 1913, xxxix, 1239.

Mantelli, C.: Untersuchungen über die Physiologie des Magens heim Menschen. Wien. klin. Wochenshr., 1911, xxiv, 451.

M'Crea, E. D., M'Swiney, B. H., and Stopford, J. S. B.: Effects of Section of the Vagi Nerves on the Motor Activity of the Stomach. Quart. Jour. Exper. Physiol., 1926, xvi, 195.

Reid, J.: An Experimental Investigation into the Eighth Pair of Nerves. Edinburgh Med. and Surg. Jour., 1839, li, 274.

Veach, H. O.: Vagus Effects on the Lower End of the Esophagus, Cardia and Stomach of the Cat in Relation to Wedensky Inhihition. Ibid., 1925, lxxi, 229.

THE SURGICAL TREATMENT OF ACUTE AND CHRONIC EMPYEMA*

STUART W. HARRINGTON, M.D.

Division of Surgery, The Mayo Clinic

ROCHESTER, MINNESOTA

The term empyema has been used to designate a purulent infection in the pleural cavity since the writings of Aëtius in the sixth century, and surgical treatment for the condition is among the earliest operative procedures. Even though the disease has been regarded as a surgical condition for many centuries, there is no generally accepted method of treatment and there is considerable difference of opinion as to the types of surgical treatment. That there still remains a definite surgical problem is evidenced by the number of cases of chronic empyema which are being seen every year, many of which would not have occurred had proper treatment been instituted during the acute stage of the disease.

The first important consideration in the treatment of empyema is the establishment of a definite diagnosis which must be proved by the findings of pyogenic bacteria by cultural methods—or by stained smears taken from the fluid removed from the pleural cavity. If the presence of pyogenic bacteria cannot be definitely demonstrated in the fluid removed, the thoracic cavity should not be surgically drained regardless of the gross appearance of the material removed because of the possibility of the condition being a sterile effusion of tuberculous origin, the appearance of which not uncommonly closely simulates pyogenic pus. The injudicious open drainage of a sterile tuberculous effusion is usually followed by superimposed secondary pyogenic infection and most commonly results in persistent draining of a sinus of the wall of the thorax. Many patients have lost their lives or become chronic invalids by the introduction of secondary pyogenic infection into a tuberculous effusion. After having definitely established the presence of a pyogenic organism, the next important consideration is the type of infecting organism. Empyema is usually an

*Read before the Michigan State Medical Society, Kalamazoo, September 13 to 15, 1932.

unavoidable complication of some primary pulmonary infection. The most common types of bacteria which invade the lungs and secondarily the pleural cavity are the pneumococcus and streptococcus.

The pneumococcic type of empyema is likely to occur late in the course of the pulmonary disease during the process of healing, and there is a tendency to early formation of fibrin and frank pus, with thickening of the pleura. The streptococcal types of empyema usually occur early in the course of the pulmonary disease, and the formation of fibrin and frank pus, with thickening of the pleura, is less rapid. This type presents the greatest surgical risk because the empyema is present when the toxemia of the pulmonary disease is greatest.

ACUTE EMPYEMA

During the acute, seropurulent stage of empyema, aspiration should be performed as often as necessary to relieve cardiac and respiratory difficulty. Gradual transition from a clear, thin fluid to an opalescent, thick fluid, will be observed, and finally frank pus will be obtained, at which time surgical drainage is indicated. Repeated aspiration rarely effects cure, although it may be curative occasionally in hemolytic streptococcal types of the disease. However, repeated aspirations are of great aid in tiding the patient over the critical period of the illness, until the pneumonic process is healed, and fibrinous thickening of the visceral pleura has stabilized the mediastinum. Operative drainage by one of the closed methods can then be accomplished with greater safety.

From an anatomic standpoint, acute empyema may involve the entire thoracic cavity, with complete collapse of the lung, or encapsulation may have taken place, and the empyema may be of the interlobar, parietal, mesial or diaphragmatic types. In these types of empyema, only a portion of the thoracic cavity is involved, and the lung is only partially collapsed. The condition may be unilateral or bilateral and the encapsulated cavities may be single or multiple.

The fundamental principle of the surgical treatment of acute empyema is surgical drainage, but the time, site and method of obtaining drainage depend on the indications in the individual case. Many methods have been advanced for the accomplishment of drainage in these cases, but none has been entirely satisfactory in all cases, which explains the multiplicity of operative procedures. The cardinal principles of any method of surgical treatment must be: (1) adequate drainage, (2) rapid sterilization of the diseased area, and (3) early obliteration of the cavity by expansion of the lung. Surgical intervention should be as conservative as is consistent with effectual treatment directed toward saving the patient's life, and secondarily toward restoring the patient to health with the least loss of structure and function and with the minimal amount of discomfort and deformity. This result is best accomplished by instituting a type of drainage which maintains the negative intrathoracic pressure which is necessary to proper function of the thoracic viscera, and essential to expansion of the lung. The so-called intercostal closed method of drainage is based on physiologic principles in that it preserves the intrathoracic negative pressure, promotes rapid expansion of the lung and permits adequate drainage of the toxic material when properly instituted.

The technic of procedure for closed drainage is a matter of personal experience. I have obtained the best result from the intercostal closed method and from the transcostal closed method, in the latter of which the catheter is inserted through the inner layer of periosteum, after resection of a small segment of rib. The site of drainage is determined with an aspirating needle; a trocar and cannula of the desired size are then inserted through the selected interspace, and a catheter the exact size of the trocar is inserted through the cannula, which is then withdrawn. In this way the drainage tube fits the opening in the thoracic wall as accurately as possible. The tube has an opening at the end, and another at the side, and enters the empyema cavity for not more than half an inch, thus preventing injury to the pulmonary tissue when the lung reexpands to fill the cavity, and also avoiding mechanical irritation as a contributing cause of thickening of the pleura. The tube is clamped and securely fastened to the thoracic wall with adhesive tape, making an air-tight closure. The pus is aspirated with a syringe, and the cavity is irrigated at first with physiologic sodium chloride solution. When a bronchial fistula is not present, 0.5 per cent chlorinated soda (Dakin's solution) is used to aid in sterilizing the cavity, in liquefying the fibrin and

to act as a chemical decorticant. This procedure is carried out every hour in the course of the day and every two or three hours at night. The patient is immediately started on respiratory and blowing exercises to reëxpand the lung and to obliterate the cavity. It is important that the distal end of the tube draining the thoracic cavity should be open during the blowing exercises. This can be accomplished by placing an extension onto the catheter and placing the distal end in a jar containing saline solution, having the end of the tube below the level of the fluid. This prevents the entrance of air during inspiration and facilitates the expansion of the lung by increasing the negative intrathoracic pressure during expiration. The vital capacity is estimated daily to determine the progress of the reëxpansion of the lung. A specimen of the drained material is taken for culture, and the capacity of the cavity is measured once a week.

The solution used to irrigate the cavity is a matter of choice and experience. Many solutions act better in the test tube than in contact with tissue. I have tried the different solutions, and recently have studied three parallel series of cases; in one series, I used mercurochrome, in a second, physiologic solution of sodium chloride, and in the third, 0.5 per cent chlorinated soda. It is difficult to make any definite decision relative to the merits of each. I believe that there is very little antiseptic value in the solutions used, and that the efficiency of the irrigation method lies in the mechanical washing out of the pleural exudate. Because I have employed the solution of chlorinated soda for a longer time, I may be prejudiced in its favor. Its greatest value in obliterating the cavities consists in its proteolytic properties and in its mechanical action on the tissues; thus the period of drainage and of convalescence is shortened. It must be used of a strength so that 0.45 to 0.5 per cent of free chlorine, the active agent of the solution, is available and it should be freshly prepared. I use a solution of hyclorite, a proprietary preparation, which is about eight times normal strength, is more stable than 0.5 per cent chlorinated soda, and does not have to be prepared so often. It is prepared for use by mixing one part of the hyclorite solution with seven parts of distilled water. It is not only bactericidal but lytic in action, and, therefore, is of great value in cases in which the closed method of drainage is used, and in cases in which there are masses of fibrin in the pleural exudate. Hyclorite cannot be used in cases of pleurobronchial fistula in which drainage has been accomplished by the closed method because it gives rise to irritative cough. In these cases, irrigation with solution of sodium chloride is carried out until open drainage can be instituted.

Great care should be exercised in maintaining nutrition and body fluids of these patients. They should be given a diet of high calorie value, averaging from 3,000 to 3,500 calories a day, with a liberal intake of fluid.

The intercostal, closed method of drainage is not new, for the underlying principle was first advocated by Bulau and was reported in 1891. The method described is a modification, with many changes in detail and subsequent treatment. In some cases the drainage may be interfered with by plugging of the tube with masses of fibrous material from the pleural exudate. This material usually can be dislodged by suction on the tube with a syringe. Occasionally there is leakage around the tube, but as a rule this does not take place for a week or more, by which time the patient has been carried over the dangerous period and marked reëxpansion of the lung has taken place. Then open drainage by costal resection can be instituted with greater safety. In the majority of cases there is no technical difficulty with drainage and irrigations, and the size of the cavity gradually decreases. This decrease is most marked in the first week or ten days, after which reduction is much slower.

When the capacity of the cavity has been reduced to 50 c.c. and little progress occurs after two or three weeks, an open operation is performed, involving resection of one or two ribs. The residual cavity is allowed to heal by granulation, and is packed twice a day with gauze saturated in hyclorite solution, or if the cavity is large enough tubes are inserted for irrigation with hyclorite solution.

If the cavity continues to contract under the closed method of treatment, the tube is gradually shortened until the cavity is entirely obliterated. This can be done in 60 to 70 per cent of the cases, but there is danger of recurrence, and if there is a return of symptoms a tube should be reinserted immediately. It is probably a safer procedure

to change to open drainage after practically complete reëxpansion of the lung has taken place, and only a small residual pocket remains, particularly if the patient is not under observation daily.

I recently reviewed seventy-one cases of acute empyema in which I have operated in the last five years. The infecting organism in thirty-two cases was the pneumococcus Type I, in five cases the pneumococcus Type II, in three cases the pneumococcus Type III, and in one case the pneumococcus Type IV. In twenty cases the streptococcus was the infecting organism, and in seventeen of these it was of the hemolytic type. Intercostal, closed drainage was used in thirty-four cases. Of these, healing was complete in twenty in from three to six weeks, without further operative treatment. In fourteen cases, it was necessary to perform a minor open operation, removing a small segment of from one to three ribs to hasten obliteration of a small residual sinus or cavity holding from 15 to 30 c.c. of drainage material. In thirty-two cases the transcostal type of closed drainage was done, in twenty-four of which healing took place without further operation and in eight of which subsequent open operation was required to obliterate a small residual cavity. Repeated aspirations were performed in five cases of streptococcal empyema, and in three of these subsequent open operation was required. In the two cases in which healing took place the infection was of the hemolytic streptococcal type. The most common causes for failure of complete obliteration of the cavity by the closed method were the presence of pleurobronchial fistula, and thickening of the visceral and parietal pleura, with fixation of the lung as a result of delayed drainage. In a few cases in which it was impossible for patients to remain under observation, an open operation was done for a small residual sinus, because of the possibility of retention of seropurulent exudate in the small sinus tract. Such retention may cause recurrence of the empyema. There were four deaths from operation in the entire series.

CHRONIC EMPYEMA

Since chronic empyema follows the acute type by a gradual development, on which an arbitrary time limit of three to four months may be placed, it would seem that if all the factors leading to chronicity could be anticipated, and obviated during the treatment of the acute conditions, there would be no lapse into a chronic state, and complete healing would result. However, uniformity of cases and perfection of diagnosis and treatment cannot exist, and in many cases chronicity is certain from the onset; such cases are those in which the etiologic factor is tuberculosis, actinomycosis, amebiasis, subdiaphragmatic and pulmonary abscesses rupturing into the pleural cavity, and degenerated pulmonary malignant growths, with secondary infection and rupture into the pleural cavity.

The most common factors which usually lead to the development of pyogenic postpneumonic types of chronic empyema are those of faulty drainage. For instance, drainage may be too late or too early and may be of short duration; the drainage tube may not be in the most dependent or favorable position, it may be introduced into the thoracic cavity too far and may injure the expanding lungs, or it may be left too long and thus form a thick, fibrous sinus tract, or it may be of too small caliber. Other factors are the collapse of the lung, secondary encapsulated cavities, pleurobronchial fistula, foreign bodies such as drainage tubes, or bismuth in the empyema cavity, the formation of deposits of calcium lining the empyema cavity and osteomyelitis of the ribs from secondary infection of the thoracic wall. Since many of these conditions are avoidable, and treatment demands operative procedures that are of much greater magnitude than those necessary for the treatment of acute conditions, it is important that proper treatment be carried out during the acute stage of the disease.

Surgical treatment in these cases should be as conservative as possible, but unfortunately many cases, particularly those of long duration, require extensive operative procedures which are most safely done in multiple stages. The operative procedure should be selected which will restore the patient to normal health in the shortest time, with the least loss of structure and function, and with the minimal amount of discomfort and deformity. There are two general types of treatment for these chronic cases. The first type of treatment is one in which the fibrosed, thickened pleura, which is binding the collapsed lung to the thoracic wall, is removed by so-called decortication, permitting the lung to expand. This type of treatment

is usually applicable only to the subacute types of empyema. The second type of treatment may be called a collapse method. It is opposite in principle from the treatment of the acute condition, for the thoracic wall is brought down to meet the lung by removing the ribs, intercostal muscles, and thickened pleura over the empyema cavity. This type of operation is usually necessary when the condition has been present for more than six months to one year. Before the more extensive operation is performed, all septic material should be removed from the empyema cavity, which should be reduced in size as much as possible by prolonged irrigation with 0.5 per cent solution of chlorinated soda. The irrigations may be carried out through the sinus tract, or, if this is not adequate, a dependent opening should be made for irrigation. The patient's general condition is usually greatly improved by this preoperative treatment. The cases usually can be divided into three main groups: (1) those in which the cavity is small and overlying ribs, intercostal muscles and thickened pleura can be removed at one operation, (2) those in which the cavity is larger and multiple operations are required, muscle flaps are turned into the cavity to assist the obliteration, and (3) those in which the cavity involves practically the entire hemithorax, with complete collapse of the lung, and treatment is first carried out by extrapleural resection of ribs in multiple stages, gradually bringing the thoracic wall down to meet the lung. The upper ribs are removed first, and the cavity is irrigated between stages. When the resection of ribs is completed, there is usually a small residual cavity which requires open operation.

The operative mortality is not high; it has been greatly reduced by operation in multiple stages. In a series of 252 cases, in which all types of operation were performed, there were six deaths, an operative mortality of 2.3 per cent.

TUBERCULOSIS OF THE SKIN*

HARTHER L. KEIM, M.S., M.D.†
DETROIT, MICHIGAN

Tuberculosis of the skin is not a common type of involvement in comparison with the prevalence of the infection in other tissues and organs of the body. It is, however, encountered sufficiently often to make it a subject worthy of serious consideration by physicians in all branches of clinical medicine. While not as prevalent in this country as abroad, especially in Northern Europe and the Orient, it is by no means here a rare condition.

In the skin, as elsewhere, destruction is the rule and in certain of its manifestations, particularly when the face is involved, serious scar formation and disfigurement often result. In general its lack of response to treatment also makes it a subject worthy of careful attention by all of us. Here, as in other parts of the body, the disease is acquired by infection, the infecting material gaining access to the economy, in a large number of instances, by way of the lymphatics. Opportunity for such transmission is particularly to be found among members of any family where pulmonary tuberculosis exists. Direct inoculation, the mode of entrance in tuberculosis verrucosa cutis, is not uncommon in other varieties and has been reported following vaccination, the piercing of the ear-lobe for the insertion of ear-rings and numerous other local procedures where the organism has been accidentally implanted directly into the dermis.

The discovery of the tubercle bacillus decidedly changed the older conception of scrofulous disease of the skin. Previous to that time tuberculosis cutis orificialis and tuberculosis ulcerosa were considered to be the sole manifestations of tuberculosis as it involved the cutaneous covering. A few years after the discovery of the bacillus of tuberculosis, Riehl and Paltauf described another type of lesion, namely tuberculosis verrucosa cutis. Since that time a comparatively large number of dermatoses have been ascribed to the activity of this organism, which has naturally led to an attempted

*Read before the Section of Dermatology of the Michigan State Medical Society at its annual meeting in Pontiac, Michigan, September 23-24, 1931.

†Dr. Harther L. Keim is a graduate of the University of Michigan Medical School, 1917. He was formerly Associate Professor of Dermatology and Syphilology, University of Michigan Medical School.

classification, which in the present state of our knowledge is both confused and complicated. While it is not within the scope of this paper to enter into a detailed classification, two main types of lesion are generally recognized and warrant our attention. It must furthermore be borne in mind that in a paper of this length one can not enter into a detailed discussion of the innumerable controversial points, concerning especially the tuberculides, nor can the expressions of many writers be recorded. Rather, an attempt will be made to summarize the known facts about tuberculosis of the skin and to crystallize the opinions of present day investigators concerning the less well known facts of an interesting group of dermatoses whose relationships and interrelationships are gradually being enlarged and clarified.

The lesions of tuberculosis as it involves the skin are divided into two large groups: namely, the true cutaneous infiltrates and the tuberculides. As additional experimental evidence accumulates, the number of types of the first group are definitely increasing, at the expense of group two. While there are those who are willing to accept all the designated tuberculides as true tuberculosis it seems better, until the matter is definitely settled, to maintain the distinction, and describe the several varieties individually.

The true infiltrates number four and included in this group are lupus vulgaris, scrofuloderma, tuberculosis verrucosa cutis and tuberculosis cutis orificialis. While the clinical aspects of these forms vary in detail, they have the following features in common: 1. The histopathologic picture does not differ essentially from tuberculosis in other parts of the body, and, while there are some variations encountered, the essential features are so uniform as to make the pathology obvious from a single exciting cause. Briefly it is produced by the local action of the tubercle bacillus and presents a cellular new growth; vascular changes ranging from a slight proliferation in the coats of the vessels to their complete obliteration; and attenuation, hypertrophy or destruction of the collagen. 2. The infecting organism can be demonstrated both in the lesion and by animal inoculations. 3. Most of the characteristic signs of the infectious granulomata are present. 4. All patients with true cutaneous tuberculosis react positively to tuberculin.

These disorders are well known to dermatologists but it has been my experience that others are not especially familiar with the salient clinical features and for this reason they will be briefly reviewed.

Lupus vulgaris by predilection attacks the face, beginning about the nose or on the cheek, the face accounting for about 80 per cent of the primary lesions. The disorder starts as a rule in early life as a minute nodule or small area of dull discoloration. Gradual extension occurs. The process remains dry or ulceration occurs and the characteristic granulomatous lesion with atrophy makes its appearance. Variations from the rule are common, but the peculiar color, presence of apple jelly nodules at the border, spontaneous atrophy, all characterize this type of involvement. The course of the disease is extremely slow; years ordinarily are required for the growth of the average lesion.

The term scrofuloderma is now limited to those lesions of the skin produced by the local action of the bacillus of tuberculosis, by direct extension from some structure beneath. The sites of election, then, are over the superficial lymph glands, as in the neck, axilla and groin, about joints and over the bones most commonly involved in tuberculosis. The forerunner of a scrofulodermous lesion is a firm subcutaneous nodule, which gradually enlarges, softens, and becomes attached to the overlying cutis. These nodules soon break down and produce irregularly linear ulcers and fistulous tracts with a marked tendency to heal with the formation of longitudinal cicatrices. The progress of the lesion is slow but decidedly more rapid than in lupus vulgaris. As this type of involvement is frequently encountered, further details are not essential.

Tuberculosis verrucosa cutis is characterized, as its name indicates, by the presence of warty lesions. The classic example is the anatomical tubercle or verruca necrogenica, which is always produced by direct inoculation and is therefore considered as the inoculation type of cutaneous tuberculosis. The postmortem tubercle begins at the site of an abrasion, usually on the finger or thumb of one who is engaged in handling tuberculous material. The earliest lesion is a papule or papulo-pustule, which is deep seated and surrounded by a zone of deep inflammatory reaction. The process slowly enlarges to the size of a large pea or cherry, induration takes place and the surface be-

comes verrucous. One lesion is the rule. Usually the disorder remains benign and persists solely as a nodular warty tuberculosis. The other variety of tuberculosis verrucosa cutis is similar, though more extensive, and occurs predominantly on the hands or feet. It resembles closely cutaneous blastomycosis and is further distinguished by being frequently bathed in a muco-purulent discharge.

Tuberculosis cutis orificialis occupies the unique distinction of having been regarded at one time as the sole manifestation of tuberculosis as it involves the skin and mucous membranes. The most characteristic type of this form of cutaneous tuberculosis is seen at the muco-cutaneous junctions of the mouth, anus and genitals. The lesions vary from a small fissure to a chancre-form papule, both of which may be extremely painful. Extension is relatively rapid and involvement of the adjacent mucosa is the rule. On the mucous membranes, the lesions are of the miliary type. The small firm nodules rapidly break down, as do most lesions on moist surfaces, and produce sharply definite superficial ulcers. Coalescence promptly occurs, forming irregularly oval or linear ulcers. The floor of the ulcer is covered with a purulent grayish exudate and often studded, as is the border, with minute yellowish white granules, the remains of the original miliary tubercles. The borders are always undermined. Pain is a variable symptom and there is little tendency to spontaneous healing. Tuberculosis of the mucous membranes is usually secondary to tuberculosis elsewhere, particularly pulmonary or laryngeal. Infection through tuberculous sputa or extension of a cutaneous focus are the commonest direct causes.

In addition to the accepted treatment for patients who are suffering with tuberculosis of any organ or tissue, certain local measures in the care of cutaneous tuberculosis are of proven value. Without a doubt, treatment with the Finsen light is the most satisfactory form of local therapy. The method is not only most successful in destroying the disease process and preventing the certain slow progression, but the end-results are more satisfactory than other methods, because the scars so produced are less disfiguring. Statistical reports are available from the Finsen Light Institute in Copenhagen concerning the satisfactory treatment of large numbers of cases, which results apparently can not be duplicated anywhere else in the world. While this form of therapy is being used by some in this country it is scarcely a practical one, due to the expense involved.

Roentgen rays and radium are successfully employed and offer the advantage of a shorter period of treatment than is required by the Finsen light. Telangiectasia and later malignant changes in the scar are the chief disadvantages, although it is McKee's opinion that carcinoma is no more frequently encountered in lupus vulgaris which has been so treated than in cases where no X-ray or radium was employed. The galvanocautery is also useful in destroying small tuberculous lesions.

Many caustic pastes and lotions enjoy some reputation and have been skillfully employed in the hands of a few, but at the present time are not generally used. Likewise, gold preparations which are extensively used in the treatment of the tuberculides have given almost uniformly unsatisfactory results in true tuberculosis of the skin. Tuberculin has been used with some success in lupus vulgaris and tuberculosis verrucosa cutis.

In general, prognosis in tuberculosis of the skin is good, as compared with the prognosis of tuberculosis in other organs. This is due to the scarcity of tubercle bacilli in most skin lesions and the fact that the skin is exposed to too many adverse influences to promote the growth of new colonies of bacilli.

THE TUBERCULIDES

The second group, while less known and less well understood, are of special interest to all branches of clinical medicine, particularly from the viewpoint of their general diagnostic value. For many years a number of cutaneous disorders had been observed, which were held by many investigators to have a relationship to systemic tuberculosis. However, it was not until 1896 that Darier grouped these conditions under one head and suggested the name tuberculide. These diseases did not conform to the picture of the true cutaneous infiltrates, but Darier called attention to certain features that these disorders had in common: namely, a tendency to spontaneous cure; a benign course; wide and often symmetrical distribution; recurrence in successive crops unattended with fever; and a varied histo-

pathologic picture often suggestive of tuberculosis. Likewise the tubercle bacillus is rarely findable in the lesions and animal inoculations are seldom successful.

It is well known that these tuberculides present a diverse and wide variety of clinical pictures, not infrequently more than one type being present in the same patient, while from the etiologic standpoint they have much in common. However, their genesis has been and still is a matter of much controversy.

It was first suggested that the skin lesions were due to circulating toxins of the tubercle bacillus elaborated in foci elsewhere in the body. This hypothesis led to these disorders being designated for a time as the toxituberculides.

Later the theory was offered that these cutaneous manifestations were produced by dead organisms or those of attenuated virulence, which accounted for the lack of the characteristic histologic picture of tuberculosis.

In 1914, Rist and Rolland presented an hypothesis of the tuberculides which has been rather generally accepted. They studied the reaction of the skin of tuberculous guinea pigs to reinfection with large numbers of tubercle bacilli. Special attention was paid to the histologic aspects of the reinoculated lesions and the behavior of the tubercle bacilli in them. When the reinoculated guinea pig was under the influence of a pre-existing tuberculosis the reinfection always manifested itself as an acute hemorrhagic inflammation with necrosis. The tubercle bacilli in these lesions all died off in a short time. From these investigations they concluded that the tuberculides were due to tubercle bacilli of the usual virulence, but that the affected individual, as the result of a previous visceral tuberculosis, had developed in the skin a state of allergy toward the tubercle bacillus. As a result the organisms when carried from the visceral focus to the skin by way of the blood stream are rapidly destroyed by the sensitive skin. According, then, to the rapidity of the destruction of the tubercle bacilli a histopathologic picture is produced which varies from one of typical tuberculous structure to a purely nonspecific inflammatory one. Furthermore the destruction of the bacilli by this method is held to account for the spontaneous healing of the tuberculides and the infrequency with which the organisms are found in the lesions.

Approximately twenty-five cutaneous disorders are now classed as tuberculides but in the majority of these the relationship is mainly theoretical, little evidence having accumulated to warrant such an association.

With others a tuberculous origin, at least in many instances, is demonstrable and it is to this small group that we wish to confine ourselves. Four diseases are generally accepted as proven tuberculides and two others are of such general interest and have at least a debatable relationship to tuberculosis, that they will also be considered. Erythema induratum, lichen scrofulosorum, the papulonecrotic tuberculides (including acnitis and follicles) and the saroids are accepted as tuberculides. Lupus erythematosus and erythema nodosum at least in numerous patients have an undeniable association with tuberculosis.

Erythema induratum is a chronic recurring disorder, involving by predilection the calves of young persons, more especially stout girls. The condition begins with the appearance of one or several deep seated nodules located in the hypoderm, which extend to the surface and either undergo necrosis producing ulceration or absorption and atrophy. They are bluish red in color and are as a rule painless. The eruption is usually symmetrical and at a given time various stages of evolution, with atrophy and scar formation from previous lesions, may be present. Often a tuberculous focus can be demonstrated. A granuloma with giant and plasma cells has repeatedly been reported. In spite of the fact that usually inoculation experiments are negative and the presence of the organism difficult to demonstrate, at least the most common type of erythema induratum, is thought to be due to the tubercle bacillus. The nodules and ulcers must, of course, be differentiated from late syphilides, a difficult task when no other signs of syphilis are present. Rest and general supportive treatment are definitely indicated. The water cooled ultra-violet lamp locally and tuberculin injections have both proven extremely valuable in the treatment of erythema induratum.

Lichen scrofulosorum occurs usually in young tuberculous subjects, between the period of infancy and puberty. It is characterized by large or small irregularly round

groups of millet seed to pinhead sized papules which are firm in consistency and often surmounted with fine scales. The course of the eruption is slow, involution usually occurring in several months. Recurrences are frequent. The diagnosis ordinarily is not difficult as the lesions are often typical and many times represent a sequel to infectious diseases, especially measles, in tuberculous children.

The papulo-necrotic tuberculides and their related manifestations, acnitis and folliclis, occur as follicular papules or small nodules of granulomatous consistency. The papulo-necrotic type are pinhead sized discrete acuminate reddish papules which involve the hair follicles particularly on the extremities and buttocks. Vesiculopustular lesions supervene, crusting takes place, with the formation of a necrotic papule. The life cycle of an individual lesion is from four to eight weeks. The lesions of acnitis are pinhead sized or larger, brownish-red papules, which occur on the face and have a tendency to group arrangement. The papules are indolent, but involution finally occurs, with resultant pigmentation and atrophy. The lesions of folliclis resemble both papulo-necrotic tuberculides and acnitis, but are more superficial, complete their cycle in from four to six weeks and have as their favorite sites the hands, forearms, feet and legs, although the face may be attacked. Acnitis and folliclis frequently coexist. A large number of patients presenting this form of tuberculide, have demonstrable foci of tuberculosis, although Guy believes that clinical papulo-necrotic tuberculides in certain cases are the result of the dissemination of feebly pathogenic non-tuberculous organisms, from different foci of infection. The treatment consists almost entirely of general tonic and supportive measures. Both tuberculin and arsphenamine have been successfully employed in the recurrent types.

Two varieties of sarcoid which are related to tuberculosis have been described: the multiple benign type of Boeck and the subcutaneous sarcoid of Darier-Roussy. Often a third and fourth variety are referred to, but the erythema induratum-like sarcoid of the extremities is identical with erythema induratum and the Spiegler-Fendt non-tuberculous type, composed histologically mostly of round cells, resembles closely the lymphoblastomata. The disorder originally described by Boeck occurs as nodules, papules and infiltrating plaques, presenting especially on the face, upper back and extensor surfaces of the arms. The color of the early lesion is bright red, later becoming darker and finally a yellowish-brown. They may be few or numerous, are round or oval and rather firm to palpation, often associated with peripheral telangiectasia and occasionally with slight desquamation. The plaques are similar to the nodules except that they occupy the entire thickness of the skin. The group described by Darier-Roussy develop slowly from deeply situated oval nodules, and are most often found on the trunk. They vary greatly in size and number, and in color are usually bluish-red. After attaining the size of a large bean or walnut they remain stationary. The chief clinical manifestations of sarcoid occur in the skin although other organs may be invaded. Lesions have been found in the nasal mucous membrane, tonsils, lymph nodes, spleen, kidney and liver. Sarcoid is essentially a disease of adult life and is generally accepted as a constitutional disease, with marked cutaneous manifestations. Boeck and others feel that it is caused by a non-virulent variety of bacillus tuberculosis. The occasional involvement of the hematopoietic system suggests a relationship to the malignant lymphodermata.

Lupus erythematosus is encountered more frequently than any of the accepted tuberculides, which fact, together with its controversial etiologic relationship to tuberculosis, makes it a subject of decided importance to those interested in the protean manifestations of tuberculosis. Lupus erythematosus can be defined as an acute and chronic disease of the skin characterized by the appearance of erythematous scaling patches of varying sizes and shapes, which lesions progressively enlarge, producing atrophy and scar formation. Two varieties are usually seen, the fixed or discoid and the acute disseminated form. Although lupus pernio and the telangiectatic type are recorded, they are exceptionally rare.

The discoid or localized variety is most frequently seen, especially in women, and involves the face, scalp and ears. Extracapital lesions may appear and are ordinarily found on the dorsal surface of the hands and fingers. The first lesion is a bright red papule which does not blanch entirely on pressure, coin shape and size, and characteristically often makes its appearance over one or both malar prominences. Symmetri-

cal extension often occurs involving the skin over the nasal bridge and producing the butterfly configuration which is so characteristic of lupus erythematosus. The other striking diagnostic feature is the grayish or yellowish, slightly greasy scale which upon removal reveals the typical dilated follicles and whose under surface is studded with minute carpet-tack-like projections. As the border advances, the center becomes depressed, pale and finally atrophic. The eruption may become generalized, but this is not the rule and the course of this type is slow and progressive. Involvement of the mucous membranes of the lips and mouth, especially the buccal surfaces, can be found in 20 to 25 per cent of the cases so examined. The lesions are essentially the same, differing mainly because of the moist surface. In all lesions of this form the subjective symptoms are slight. The discoid variety is erratic in its course, but always persists for years, without interfering appreciably with the general health of the patient. The disease may remain comparatively stationary or rapid extension of the border may take place. Occasionally the acute disseminated type occurs during the course of the fixed form, when the lesions of the face become acutely inflamed, with the resultant development of cutaneous lesions elsewhere and associated general symptoms, but more commonly presents as a primary systemic disorder accompanied by serious constitutional symptoms. The skin picture begins as erythematous patches involving the face with much edema, often resembling erysipelas. Soon the lesions take on the characteristic features of erythema multiforme type of eruption with symmetrical and mucous membrane involvement. The temperature is elevated, arthritic and gastro-intestinal symptoms supervene and the patients are acutely ill. Remissions and exacerbations follow with a fatal outcome anticipated.

In the past the etiology of the acute disseminated form of lupus erythematosus has been generally held to be tuberculosis. The presence of tuberculous disease has been noted in as high a percentage as 70 of those afflicted, but no convincing proof has been produced to definitely class this form as tuberculous in origin. Recently Mook and others have felt that some toxic factor other than tuberculosis is responsible for this form of tuberculosis. The discoid variety has been less satisfactorily proven to be of tuberculous origin, in spite of the voluminous statistics revealing the presence of that disease in large numbers of patients suffering with lupus erythematosus. On the other hand it is well known that lupus erythematosus is comparatively rare in institutions for patients suffering with pulmonary tuberculosis. A relationship with tuberculosis, however, can not be denied, but recent observations suggest that the disease is of toxic origin, the nature of which is unknown, but most likely from various sources. External irritation and local injury, such as persistent benign dermatoses, traumatism and undue exposure to sunlight furnish the exciting causes. Circulatory changes are also known to play a part. It is the writer's opinion that the role of sunlight and more recently artificial phototherapy, upon a prepared soil, is a factor which more careful investigation will reveal to be of greater importance than any other external irritant.

The treatment of the disseminated form is unsatisfactory, for in spite of therapeutic assistance the outcome is often fatal. Roentgen rays to the deeper glands have been employed with good results in a few cases. The prognosis is always bad. The inauguration of therapy in the discoid type should be preceded by a careful search for foci of infection, as many early cases have been cured when evident foci have been removed. The vast majority of cases of erythematous lupus presents a difficult therapeutic problem. Since the introduction of the intravenous administration of gold compounds in the treatment of tuberculosis, this problem has been simplified but by no means removed. Gold and sodium thiosulphate is the drug of choice in this country and while individual reports differ widely concerning the therapeutic response, more than 50 per cent of the cases cautiously treated have been benefited. Complete and probably permanent cure has been accomplished in many cases but the use of the drug is not without danger, for serious reactions have followed carefully controlled gold therapy. The recent tendency is to diminish the size of the dose administered, together with the employment of all possible precautionary measures. While it is as yet difficult to exactly estimate the value of gold in the treatment of lupus erythematosus the addition of this weapon to our therapeutic armamentarium has been the first successful attack we have had to offer for the treatment of a rebellious

and disfiguring disease. Tuberculin is definitely contra-indicated, for experience has taught that unpleasant results follow its use in either diagnosis or treatment.

It is obvious from what has been said above that older methods of treatment have been unsatisfactory. This applies to both internal and local measures, of which there are no end. Carbon dioxide snow and roentgen therapy head the list of local measures. Radium, X-rays and phototherapy are dangerous agents and where success has followed their use the improvement has been the result of good fortune, rather than the result of rational therapeutic indications. Carbon dioxide snow, liquid air and other stimulating and mildly destructive agents are helpful in eradicating a small lesion or two, but in so capricious and erratic a disease, cure in most instances can not be attributed to such simple procedures. Because of the constant recurrences and relapses which characterize a disease concerning which the genesis is so little known, a favorable opinion with regard to the ultimate outcome can never be safely given.

The relationship between erythema nodosum and tuberculosis rests on even less convincing evidence than does the association of lupus erythematosus and tuberculosis. However, sufficient clinical data have accumulated, especially abroad, to establish an association and to require us to regard, at least many cases of erythema nodosum as tuberculides. Erythema nodosum is usually ushered in with mild constitutional symptoms and is frequently associated with arthritic pains. The lesions occur on the legs anteriorly, although the thighs, upper extremities, trunk and face may be involved. They are nodular in shape and vary in size from a pea to a hen's egg. Likewise the color varies from pink to livid blue. Tenderness on palpation is the rule. Spontaneous involution occurs in a few weeks, with a gradual change in color, such as follows a contusion. Like erythema induratum, from which it must be differentiated, it is more common in young women. Furthermore, in its clinical course it closely resembles erythema multiforme, both of which conditions not infrequently occur in the same individual. It is generally regarded as an infectious process either focal or upper respiratory, the association of rheumatoid pains lending support to this belief. Numerous investigators on both sides of the controversy have offered statistical, experimental and clinical data to prove that erythema nodosum is or is not of tuberculous origin. Whatever our belief, one can not ignore the vast amount of clinical information which has accumulated purporting to classify this disease as a tuberculide. The finding of other manifestations of tuberculosis, either before, during or after the attack, has so impressed many with the relationship which exists between the two conditions, that they are led to the opinion that the only missing link to prove a definite connection, was the demonstration of the tubercle bacillus.

For the attack little treatment is required. The usual therapy for acute infection with rest in bed, if practical, relieves the symptoms and shortens the course of the disease. However, in the light of what has been said and if we accept the relationship to tuberculosis in only a proportion of the cases, treatment should be different. It should be more prolonged than has been the custom, rest in bed should be insisted upon and open air methods of treatment and extra feeding should be employed. Every patient with erythema nodosum should be carefully examined and observed for other foci of tuberculosis.

While it is important to differentiate the tuberculides from similar cutaneous manifestations it is apparent that the chief diagnostic interest lies in the fact that the proper interpretation of a relatively banal dermatosis, raises the question of an associated hidden focus of tuberculosis. It is often thus possible to recognize the disease early and thus prevent the serious aspects as well as lower the mortality rate. This applies particularly to smaller children, in whom the appearance of tuberculides is regarded as an unfavorable prognostic sign. Frequently the appearance of tuberculides in the first year of life signifies a fatal outcome, while in the second year a smaller proportion of infants succumb to miliary tuberculosis. As the age advances the prognosis improves, but at any age their appearance should serve to awaken distrust. Stokes recently has emphasized the importance of the tuberculides in general medical diagnosis and also has called attention to their value in determining the effectiveness of surgical procedures for extirpation of a tuberculous focus, also in the detection of a tuberculous focus in eye conditions and in unraveling obscure ill health in women the recognition of the tuberculides

have been helpful. Stokes also believes that non-tuberculous septic factors are often involved in the production of tuberculides, improvement often following the removal of the focus furnishing this accessory factor.

To the trained, the recognition of these disorders is not especially difficult, but judging from past experiences most any diagnosis is apt to be offered from dermatitis to syphilis and leprosy. It is unfortunate that many examples of tuberculosis of the skin and tuberculides go undiagnosed for long periods of time, thereby losing the opportunity for an *early* recognition of systemic tuberculosis, the most important single factor in the control of the disease.

MORTALITY IN APPENDICITIS

STATISTICAL STUDY OF 951 CASES

C. R. DAVIS, M.D.†
DETROIT, MICHIGAN

An article on *Mortality of Appendicitis* by Dr. F. C. Warnshuis[1] stimulated me into looking into the mortality in my own cases, of which this article is a report. It was the high mortality which he reported for the institutions in my own city, Detroit, which excited my interest. The mortality at the Henry Ford Hospital was given as 6.9 per cent in acute cases and 3.8 per cent in chronic cases; the mortality at Providence Hospital was given as 12.05 per cent in acute cases and 2.8 per cent in chronic cases. Dr. Warnshuis cited statistics from other parts of the country which as a whole show a lower mortality, the average being 4.23 per cent in acute cases and 1.68 per cent in chronic cases, including the Detroit group. In conclusion he gave a report upon his own excellent record. I do not propose to determine why the figures quoted for Detroit are high or how they can be lowered, but I do propose to establish more certainly an average mortality rate by presenting further statistics. Furthermore, I became possessed of a desire to see if I could derive any good out of the labor required in compiling statistics.

First, I shall present more statistics so that the comparison with those already cited and my own, which are to follow, can be made readily. Dr. C. McRae and Dr. F. A. Coller[2] reported a mortality of 52.6 per cent in general peritonitis. In 325 quiescent cases, the mortality was .27 per cent. Cases with acute exacerbation had a mortality of 2.7 per cent. Deaver[3] quoted LaRogue in 600 cases of all types as having had four deaths, a mortality of .66 per cent, Dr. Battle as having had in 1,000 cases of chronic appendicitis a mortality of .2 per cent, and Dr. Gibson as having had a mortality of .72 per cent in 555 cases of chronic appendicitis. In another article Deaver[4] quoted a list of his own cases. In his list there were 561 chronic cases with four deaths or a mortality of .77 per cent; in 356 cases of acute appendicitis there were eight deaths, which made the mortality 2.2 per cent. In addition, there were three cases on which he did not operate, all of which died. In a long series of cases, reported year by year, Deaver[5] gave his results in 5,488 cases. The mortality for the whole series was five per cent. The mortality ranged from 19.2 per cent, the highest for a single year, to 2.5 per cent, the lowest for a single year. In the most recent years the mortality ran 4.2 per cent, 5.3 per cent, 3.5 per cent, and so on per year. In 1918, fifty-nine cases of appendicitis with abscess had eight resulting deaths, or a mortality of 11.5 per cent. In 1919, there were eighty-six cases of appendicitis with abscess with nine deaths or 10.4 per cent. Dr. W. D. Gatch[6] and Dr. Donald Durman stated that a fair figure for the mortality in all types of cases of appendicitis as a whole is ten per cent, and then reported 205 drainage cases with 9.2 per cent deaths and fifty-three cases that were not drained, which gave a total mortality percentage of 7.2 per cent. J. McKentry[7] quoted 17,916 cases among British and American surgeons as having had a mortality of six per cent He also stated that sixty per cent of the total

†Dr. C. R. Davis is a graduate of Ouachita College, Arkansas, A.B.; Cornell University, New York City, M.D., 1908. He served as Interne and House Surgeon at the Presbyterian Hospital, New York City. He is Attending Surgeon, Grace Hospital (Miriam Memorial Branch), Detroit.

deaths have been due to diffuse peritonitis. Carl E. Black[8] gave a summary of 83,144 cases in which the average mortality was 4.1 per cent. Dr. Black's summary of cases and the corresponding mortality were divided as follows:

Chronic	.99 per cent
Acute	4.83 per cent
Suppurative	10.15 per cent
Spreading peritonitis	2.19 per cent
Gangrenous	8.73 per cent

No general peritonitis cases were reported. From over 115,000 cases so far summarized, it appears that the mortality in operations for chronic appendicitis should be less than one per cent. A fair average for all cases is slightly over four per cent, for drainage cases around ten per cent or eleven per cent, for general peritonitis cases it should be high, around fifty per cent, as I consider the figures of Dr. C. McRae and Dr. F. A. Coller sufficiently representative so that further figures on the mortality in general peritonitis are unnecessary. I now feel safe in saying that any mortality in all groups of cases below two per cent is very low and any mortality above six per cent for all groups of cases is rather high. The Detroit figures of Dr. Warnshuis are above the average.

Now that we have some figures for comparison, I shall give an analysis of my own cases. There were 951 consecutive cases in the series, which covered a period of about twelve years. Thirty-two cases in this series died, a mortality rate of 3.36 per cent. The following pathological conditions were found:

Chronic	210
Interval	50
Subacute	36
Acute catarrhal	223
Acute gangrenous	306
Perforated	136
Acute suppurative	139
Appendicitis with abscess	99
Spreading peritonitis	41
General peritonitis	26
General peritonitis with abscess	9

Many of these groups overlap. For instance, the pathologist's report on one appendix may read acute and chronic appendicitis, on another purulent and gangrenous, and again an appendix may be gangrenous, purulent, and ruptured. An abscess and general peritonitis may coexist. In this group there are seventy-six cases of spreading peritonitis, general peritonitis, and general peritonitis with abscess. Of the thirty-two deaths, twenty occurred in general peritonitis and five in spreading peritonitis, making a total of twenty-five deaths in cases of peritonitis, a mortality of 32.89 per cent. If general peritonitis alone is considered, the mortality is 57.14 per cent, but it is very difficult to be sure as to whether the case is spreading peritonitis or if general peritonitis already exists, for which reason I think it is better to classify all types of free peritonitis together. One death occurred among the chronic cases. In this case I divided many firm adhesions of the omentum, and about the duodenum, stomach, and small bowel. The patient died of general peritonitis. Two deaths occurred in acute catarrhal cases, both of which cases were due to pneumonia. Although my figures do not differ greatly from those quoted by others, I have obtained some valuable information by arranging my cases into various groups. What I consider the most instructive grouping of these cases is a division into two classes: the drained cases and the undrained cases. In the first group, the drained cases, there were 229 cases with a mortality of 27 or 11.79 per cent. In the second group, the undrained cases, there were 722 cases with a mortality of five, or .69 per cent. Two of the cases in the last group I did not drain because I did not detect the hole in the appendix until the appendix had been opened after the operation, and I did not consider the involvement as severe as it afterwards turned out to be. This error occurred because the amount of free thin fluid present in the abdomen was so small that I doubted the reality of the peritonitis. If I could do them again, I still would not drain.

An interesting subdivision of the undrained cases is a group composed of gangrenous and suppurative appendices. In this group there were 181 cases. One hundred and two of this group of cases had considerable free fluid in the abdomen, and seventy-nine had no free fluid. There were no deaths in this group. This group of cases furnishes quite convincing evidence that to "drain when in doubt" is not the proper procedure, and it is this type of case which often causes doubt. It is my belief that the dictum should be "when in doubt do not drain."

While statistics serve as a useful guide to

surgeons, they are generally looked upon as dry entertainment. I have found, however, that I, at least, have learned a great deal through this compilation of figures. Furthermore, since the mortality in the undrained cases was only .69 per cent, and the mortality in the drained cases was 11.79 per cent, if the mortality in appendicitis cases which come to me is to be lowered, I must either operate upon them before drainage is necessary, or change my procedure in the handling of general peritonitis. I prefer to get the cases before the peritonitis has begun. In an effort to get my cases of appendicitis early and in order that I may be stimulated to operate upon mild cases of appendicitis, I now tell my patients that the proper time for removal of the appendix in cases of appendicitis is the first day of the first attack.

BIBLIOGRAPHY

1. Warnshuis, Frederick C.: Factors influencing appendicitis mortality results in 11,400 cases. J. A. M. A. (Feb. 13), 1926, 86:469-471.
2. McRae, C. C., and Coller, F. A.: Observations on Acute Appendicitis Factors Influencing Mortality. J. M. S. M. S., May, 1931, 30:319.
3. Deaver, John B., and Ravdin, I. S.: End-results of 500 cases of chronic appendicitis: Statistical study. Arch. Surg., January, 1923, 6, No. 1.
4. Deaver, John B.: A year's work in appendicitis. International Clinics. Vol. 3. Twenty-second series, 1912, pages 242-256.
5. Deaver, John B., and Magouin, James: Review of five thousand four hundred and eighty-eight appendectomies performed at the Lankenau Hospital, Philadelphia. Ann. Surg., January, 1924, 79:854-861.
6. Gatch, Willis D., and Durman, Donald C.: A report on 262 consecutive cases of appendicitis. Ann. Surg., June, 1924, 79:862-870.
7. McKentry, K.: Acute appendicitis; Study of 401 cases. Canadian Med. Asso. Jour., January, 1932, 26:50.
8. Black, Carl E.: Trans. Western Surgical Association, 1931, page 423.

CHRONIC HEREDITARY EDEMA*

REPORT OF AN UNUSUAL CASE

DAVID B. DAVIS, M.D.†

GRAND RAPIDS, MICHIGAN

Numerous cases of chronic hereditary edema have been reported since Milroy's[4] original description in 1892, with little addition to our knowledge as to the etiology of the disease. The reporting of this case does not in any way solve the problem, but it is believed that it adds two entirely new observations.

Probably the most complete review of the causal factors was given by Hope and French,[2] in 1907. They observed that the "cardiac, pulmonary, renal and hemic causes can be rapidly excluded, and that myxedema, though possibly a real difficulty in some cases, can usually be excluded by the normal conditions of the rest of the body, by the presence of the thyroid gland, by the fact that the edema is real and not merely apparent, and by the fact that the administration of thyroid extract does not ameliorate the condition of the legs." They mentioned the local causes, such as venous obstruction or thrombosis, lymphatic obstruction and vasomotor disturbances. No one, however, has ever been able to find any evidence of venous obstruction and, although Weber[9] mentions lymphatic obstruction, I believe that that, too, can be eliminated by the observations of Higgens,[1] Rolleston[2] and the case here reported, because the edema entirely disappears on prolonged rest in bed, which is not true of filarial elephantiasis and septic lymphatic elephantiasis. The theory that the vasomotor nerves play a part in the cause of the edema can not be so easily discarded, and Milroy,[5] in his second paper, considered the theory as a possible explanation.

The pathologic alterations in the skin and subcutaneous tissues have been described for the first time in a recent article by McGuire and Zeek.[10]

CASE REPORT

A white man, single, aged thirty-six years, entered the Temple University Hospital in October, 1931, complaining of pain and swelling of the stump of the left leg, on wearing an artificial limb.

Family history.—The patient has two living brothers, who, since childhood, have each had a swelling of both legs to the knees. His mother and maternal grandmother had a similar swelling of the legs all their lives.

Past health.—There was nothing of significance in the past health other than the swelling of the right leg, which he had had as long as he could remember, and the amputation, by a train, of the left leg, at the

*Reported through the courtesy of Dr. W. B. Forman.

†Mary R. Lewis Fellow in the Department of Neurosurgery, Temple University School of Medicine.

age of thirteen. Since the amputation he has worn an artificial leg.

Present illness.—On December 15, 1930, the stump of the left leg suddenly began to ache. The aching continued for three days and, a few hours after its onset, was accompanied by paroxysms of sharp pain. With the attacks of sharp pain, he experienced nausea, vomiting, chills and a fever of 102. About eight hours later, it was noted that the left leg had become red and swollen from the end of the stump to midthigh. After having been confined to bed for five days, the swelling and redness, as well as the general discomfort, entirely disappeared; so he got up, adjusted his artificial leg, and proceeded to go about as usual. A few hours later the swelling returned and with it pain, the latter being apparently due to the upper constricting band of the artificial limb. After another trial or two, he discarded the appliance and began to walk with the aid of crutches. Two weeks from the time of onset, the swelling of the left leg had all the characteristics of the right. The swelling was enormous, particularly if he remained in a vertical position all day, but would recede slightly each night, though never entirely subside unless he remained in bed for from four to five days.

Fig. 1. Note the edema from toes to knee on right and from stump to midthigh on left.

In April, 1931, a periarterial sympathectomy was performed on the left femoral artery, presumably with the idea in mind that the pain caused by the wearing of the artificial limb could be relieved, although the edema might not be controlled. The procedure relieved neither the pain nor the swelling.

Since that time he had been given "electrical treatments" and had taken various drugs, with negative results.

Examination: General.—The patient's height was 67 inches and his weight 114.5 pounds. Temperature was 97 F., pulse 88, respirations 20 and blood pressure, 120/78. There were no abnormal findings on examination of the eyes, neck, throat, chest or abdomen. The arms were normal. The right leg presented a hard, white, painless, pitting edema that extended from the toes to the knee. Except for location, from stump to mid-thigh, the edema of the left leg was the same as that of the right. The skin of both legs was brawny (Fig. 1).

Laboratory examinations.—Summary of the findings:

Urine, normal.

Phenolsulphonephthalein test, normal function.

Microscopic examination of the blood, negative.

Coagulation time of the blood, normal.

Blood chemistry: sugar, 91.3; uric acid, 2.7; urea, 22.0; creatinin, 1.3; calcium, 11.

Kahn and Wassermann tests, negative.

Roentgen-ray examinations.—The examinations of the entire spine, pelvis and both legs were negative.

Skin tests.—Although the history indicated that the edema was not of an angioneurotic type and the family history was negative for all types of allergy, it was deemed wise to test the patient with the commoner types of food, by the intradermal method. These tests were negative.

Progress notes.—The patient was kept in bed continuously, on two different occasions. After the first period of bed rest had lasted for five and one-half days, the edema of both legs had entirely disappeared. He then was permitted to be up and about the ward, during the day, for the next ten days. Throughout this period the edema persisted, although it tended to recede slightly each night. On the eleventh day he returned to bed for a continuous period of rest, and four days elapsed before the edema again entirely disappeared.

COMMENT

The edema of the right leg presents the picture of the classical descriptions of Milroy[4] and Meige.[3] From the literature, one would expect the edema of the upper part of the left leg to have appeared after the amputation (trauma); instead, it followed an "acute attack" twenty-three years later. Milroy,[5] in his second paper, stated that he had had no experience with the "acute attacks," but others[2,8] have described them and believed that they had some definite relation to the onset of the edema.

It has been reported that the edema recedes slightly each night though never entirely. In this case, however, on two different occasions the edema entirely disappeared after a period of bed rest for four to five days. This observation would also tend to discount the surmise of F. P. Weber[9] and others, when they mention lymphangitis and lymphatic obstruction as possible causal factors.

A local disturbance of venous origin has been suggested as a possible explanation of the edema, but this has never been substantiated by any clinical evidence.

It is of interest to note that the periarterial sympathectomy relieved neither the

pain nor the edema. The pain, however, was present only when the patient wore an artificial limb, and so cannot be said to be directly related to the edema.

SUMMARY

I. The only known case of chronic hereditary edema to appear in the stump of an amputated leg is presented.

II. The edema of the left leg followed an "acute attack" twenty-three years after amputation (trauma).

III. Periarterial sympathectomy on the left femoral artery was tried, with negative results.

626 MEDICAL ARTS BUILDING.

BIBLIOGRAPHY

1. Higgens, Harold L.: Two patients in the same family with hereditary edema of the legs (Milroy's disease), Journal Med. (June), 1927, 8:199.
2. Hope, W. B., and French, Herbert: Persistent hereditary edema of the legs with acute exacerbations. Milroy's disease. Quart. J. Med., 1907, 1:312.
3. Meige, Henry: Le Trophoedeme Chronique Hereditare, Nouvelle Iconographie de la Salpêtrière. 1899, Tome Douzieme: 453-480.
4. Milroy, W. F.: An undescribed variety of hereditary edema. New York Med. Jour. (Nov. 5), 1892, 56:505.
5. Milroy, W. F.: Chronic hereditary edema: Milroy's disease. J. A. M. A. (Oct. 20), 1928, 91:1172.
6. Page, Clarence W.: Milroy's disease: Report of two cases, Cal. and West. Med. (Aug.), 1928, 29:101.
7. Rolleston, H. D.: Persistent hereditary edema of the lower limbs. Lancet, 1902, 2:805.
8. Strauss, Arthur E.: Hereditary edema (Milroy's diseases. Cal. and West. Med. (Aug.), 1928, 29:101.
9. Weber, F. P.: A note on the nature of the Milroy-Nonne disease. Brit. J. of Child. Dis. (July-Sept.), 1929, 26:204-207.
10. McGuire, Johnson, and Zeek, Pearl: Pathogenesis of chronic hereditary edema of extremities (Milroy's disease). J. A. M. A. (March 20), 1932, 98:870.

THE USE OF SODIUM AMYTAL AND AVERTIN IN OBSTETRICS*

W. C. ELLET, M.D.†
BENTON HARBOR, MICHIGAN

The quest for painless childbirth has been going on for ages, with expectant mothers seeking physicians who can offer relief, and physicians seeking methods which will promise relief compatible with safety to the mother and child. There is a definite demand on the part of the patient that she have every aid to make the ordeal as comfortable as possible; on the part of the physician, there is that desire to accede to this request, not only from the humanitarian urge to abate pain, but also to avoid the attendant confusion and excitement usually associated with delivery. We believe this latter element is responsible for accidents of birth more than any other single factor. The distress of the woman in labor, while registering to a degree on the obstetrician, has a far more disastrous effect on the family, and, if in the hospital, on other cases in the maternity section, with the result that the attending physician under such stress feels called upon to hurry the procedure, when the patient would deliver herself if quieted and left alone.

Though Nature has, unquestionably, provided mechanism in the form of pressure analgesia along the birth canal, and amnesia from cerebral congestion, brought about by the bearing down efforts of the normal case, yet we have to contend with the fears and apprehensions of the parturient woman increased by superstitions, stories and fictions of new life and even the dramatic tales of the doctors. Such things as these and lack of mutual understanding between husband and wife create loss of confidence in the doctor, with the result that fears and apprehensions are exaggerated, and the patient may become practically uncontrollable at delivery.

It has always been our contention that with the first visit of the pregnant woman to her doctor, anesthesia really starts. The art of obstetrics is closely interwoven with the practice of neurology, as all of us realize that extraneous influences can wreck entirely the most skillful technic, so that a mental hold over his patient is a necessity to the obstetrician. Variations in individual nervous constitutions make standardization of mental methods impossible, so we have been led to seek methods which can be used routinely; to reinforce the normal protection from fear and pain, and to protect from external

*Read before the Section on Obstetrics and Gynecology, Michigan State Medical Society, Kalamazoo, September 15, 1932.

†W. C. Ellet, graduate U. of Michigan, '21, Interne Harper Hospital Detroit, Spec. Obstetrics and Gynecology, Member Surgical Staff Mercy Hospital, Benton Harbor, and Director of Public Health City of Benton Harbor.

influences the operative and "high-tensioned" case.

Therefore to have a routine anesthesia that approaches the ideal it must relieve apprehension and pain, not interfere with uterine contractions or stop the normal mechanism of labor, allow a certain amount of voluntary coöperation from the mother, be equally safe for fetus and woman, efficient, and simple to administer for the physician. With these factors in mind we have run a series of cases, with no attempt to single out or except any types, but have used the methods as herein outlined in all cases admitted to our service in the hospital.

Our previous experience with sodium amytal, the sodium salt of iso-amyl-ethyl-barbituric acid, to relieve fear and apprehension was very satisfactory, but pain was not relieved even in larger doses, so we felt that avertin, tribromethanol in amylene hydrate, which we had used routinely as a basic anesthesia in surgery and knew its results in stopping pain, was a good drug to combine with the sodium amytal.

Although we had used these preparations separately in previous cases, and in combination for surgical cases, yet the fear of drug absorption by the fetus was our greatest worry when we first started this work. To make sure of our ground in the first cases small doses were used. With the aid of the staff anesthetist, Priscilla Barbary, R.N., who administered the avertin, and collaborated in this work, the procedure was outlined as follows: On admission the patient received six grains of sodium amytal by mouth, regardless of the stage of labor. Rectal examination was then done, and if labor was not far advanced, and the rectum filled, the usual cleansing enema was ordered. Retention of the enemata retards absorption of the avertin so that we prefer this preparation several hours in advance of such administration. The avertin was to be given when the head was engaged and dilatation nearly complete.

The first case, Mrs. K., a primipara aged twenty-four, was admitted shortly before 11:00 A. M., with pains every five minutes, not severe, and received the sodium amytal by mouth. Rectal examination at 12:30 showed dilatation complete, membranes not ruptured and pains coming every two minutes. The avertin was administered 40 mg. per kilo, 2.2 c.c. of avertin fluid to 88 c.c. of water. The mixture was prepared in the usual manner, as advised by the manufacturer, viz., the water first heated to about 104 degrees in a closed flask, the avertin fluid added from a pipet and thoroughly mixed by shaking. The solution then tested with Congo-red, one or two drops of 1:1000 in 3 c.c. of the mixture. Development of the pure orange red color is the normal reaction, blue or violet is a sign that the solution has decomposed and should not be used. Following the test the mixture was then slowly injected into the rectum between pains, much in the same manner as the technic in Gwathmey's ether-oil instillation.

In this our first case the dose used was practically two-thirds the suggested dosage for obstetrical cases because of the previously administered sodium amytal. Given at 1:10, about an hour and a half following the sodium amytal on admission, the patient within a few minutes became very drowsy, arousing with pains, which continued every two minutes, to coöperate and bear down. The blood pressure was carefully watched, and showed relatively no change. Membranes were ruptured manually at 1:50 with the head beginning to crown, and the child delivered at two o'clock with good color and spontaneous respirations. There were no perineal laceration, no hemorrhage, the fundus contracted normally, and the patient returned to her room in good condition, sleeping lightly for a period of two hours. Conversation with the patient the next day revealed that she remembered nothing after leaving her room where the avertin was administered.

The next case of interest in which we increased our knowledge, dosage and technic was another primipara, Mrs. S., aged twenty-one, who was admitted at 3:45 P. M. with pains every twenty minutes, a very nervous type of case. The usual six grains of sodium amytal by mouth was administered. The rectal examination showed only a thinning of the cervix with no dilatation, and position could not be determined. One hour after admission, because pains were weak and ineffective, six grains of quinine were given. Three hours after admission, the cervix admitted one finger, pains were irregular, and the diagnosis of occiput-posterior was made. Sodium amytal was reordered and a plan of waiting was decided, with the sodium amytal ordered, grains three, every three hours. At 6:30 A. M., 15 hours after admission, the pains were every two to three minutes, very severe and the patient complaining, so the fifth dose of sodium amytal was doubled, making a total of 18 grains since entrance. The patient quieted and would sleep between pains. Examination showed three fingers dilatation. At 9:15 A. M. rectal examination showed the patient to be nearly completely dilated with the anterior cervix thin, and no rotation of the occiput-posterior. Three c.c. of avertin fluid or 50 mg. per kilo were given in 120 c.c. of water, after the manner previously described, and within a few minutes the patient was sound asleep. A version was done with forceps on the aftercoming head. Although we had increased the avertin dosage over the previous cases, it was necessary to supplement this case with drop ether, forty minutes after avertin was administered. There was no post-partum hemorrhage, the child was normal, and no asphyxia,

and there had been no change in the fetal heart tone during the labor. Within three hours, the patient awoke from sleep, refreshed following nineteen hours of hard labor, of which she could recall only the most vague details of her first few hours in the hospital, and felt that having a baby was a simple procedure.

The next seven cases following this we finally settled on the figure of 60 mg. per kilo of body weight, as the standard dose to follow for the avertin, and the sodium amytal was given three grains, every three hours, after the initial dose of six grains. We decided to use milk with the watery solution of avertin in order that any expulsion, within the first 15 minutes following administration, could be recognized from the amniotic fluid and urine.

Previously, in the use of sodium amytal only, we had many cases of excitement during the later stages of delivery when pains became severe, but this entirely disappeared with the administration of avertin, the patient becoming quiet and did not react to interfere with delivery. All types of cases were encountered; one multipara in which six years previously we used Gwathmey's anesthesia with unsatisfactory results, in that she became unmanageable, responded to the sodium amytal and avertin combination with remarkable results. Other multiparas who previously had different types of anesthesia were enthusiastic and none remembered any of the events in the case room.

The need of supplementary ether in the operative deliveries made us feel that we could push the avertin dosage higher, so that in the next series of cases we would need no further anesthetic, especially if interference was needed. With 70 mg. as our standard, we met with even greater success in the subsequent cases.

The solution charts as prepared by the manufacturer recommend a 2.5 per cent solution, and as near as possible we kept to this figure, arriving at our 70 mg. dosage by adding one-half the difference between the 60 and 80 mg. dosage tables. As this made the preparation of the dosage relatively simple, and the procedure routine, we advise it for those who are interested in following this method of anesthesia.

We have not had to repeat the dosage of avertin, and would not care to recommend such procedure, relying on the sodium amytal until the cervix is dilated sufficiently to effect delivery by the normal mechanism or operation.

In our cases, we have not felt that at any time the fetus showed the effects of drug absorption. No manifestations of fetal heart changes were found during anesthesia. Asphyxia or stillbirth was not encountered in any of this series, with perhaps but one exception. This infant delivered by cesarean section, supplementary anesthesia; estimated two weeks premature, in a case of contracted pelvis, which because of a previous section was not allowed to go into labor. This baby was perfectly normal but did not cry lustily without a little stimulation, slept longer following delivery, but required no especial attention, nursing the next day and progressed in a normal manner.

CONCLUSIONS

1. Sodium amytal, the sodium salt of isoamyl-ethyl-barbituric acid, by mouth in the early stages of labor does allay apprehension. We feel that pain at this time is a minor factor. Six grain doses on admission and then grains iii, q. 3 hrs.

2. Avertin fluid, tribromethanol in amylene hydrate, per rectum is administered with engagement of the head and thinning and dilatation of the cervix, as at that time pain is a major factor, and 70 mg. per kilo in 2.5 per cent solution is safe and efficacious.

3. There is an apparent synergistic effect in the combination of these two drugs producing amnesia and anesthesia, with the result that the patient recalls none of the events and remembers no pain.

4. There is a noticeable relaxation of the perineal muscles, and we believe that cervical relaxation is increased.

5. We observed no cases of excitement, or alarming symptoms in the mother.

6. No cases of fetal asphyxia or uterine inertia were found that could be ascribed to these drugs.

7. We do not believe the method can be carried out satisfactorily in the home, feeling that the patient should be watched, while under the effects of sodium amytal and avertin, the same as for any other general anesthetic.

8. Contra-indications are the same as for any general anesthetic.

9. While we admit our series is comparatively small from a statistical viewpoint, yet, it is our contention that the combination of these two drugs has a definite

place in the field of obstetrical anesthesia. Further use will continue to give safety and alleviation to the mother, and convenience and satisfaction to the obstetrician, offering a method of undoubted value in the primipara, "nervous" and operative case, the advantage in these being almost startling and the results uniformly excellent.

ANTI-RACHITIC CONCENTRATES

D. J. BARNES, M.D.†
DETROIT, MICHIGAN

The subject to be discussed in this paper brings forward a hardy perennial which seems to crop up each season, regardless of the active research relating to antirachitic agents which has been going on for a number of years. The abundant literature accumulating on the subject is ample testimony to the uncertainty which exists in regard to their selection and use—and to the importance of rickets as a pathologic condition throughout the temperate zones.

A concentrate which would retain the virtues of cod liver oil and at the same time permit the giving of a small dose of the substance would be welcomed by the infant, parents and the physicians alike. Clouse[1] in an extensive treatise on Vitamin D passes over the use of concentrates in the treatment or prevention of rickets with the statement that generally cod liver oil can be given or, if there is a need of a concentrate, viosterol should be used. Physicians in private practice do not believe that the question of concentrates can be treated in such a casual fashion. We see too many infants who develop definite rickets in spite of the fact that apparently adequate doses of cod liver oil have been prescribed. Babies do not all take cod liver oil willingly in teaspoonful doses and some do not tolerate the fat in these quantities. There is also more than a groundless suspicion that all of these infants do not actually receive the amount of cod liver oil advised.

The dose of cod liver oil advocated for prophylaxis in infants by a majority of clinicians consulted, according to a report in the Journal of the American Medical Association[2] was three teaspoons (1500 to 2000 Oslo rat units or 150 to 200 Steenbock units) per day. The curative dose is generally assumed to be in the vicinity of two or three times the prophylactic dose. In fact, Hess states,[3] "From past experience we believe we should not have encountered so many cases of incomplete protection had we given these children ten teaspoons daily of cod liver oil —in other words the presupposed equivalent dose of 20 drops of viosterol." Ten teaspoons of cod liver oil represent about 5000 Oslo rat units of Vitamin D. In another reference[4] Hess refers to the equivalent of 14 teaspoonfuls of cod liver oil as a desirable dose in rickets, *i.e.*, about 7000 Oslo units of Vitamin D daily. Other dosages recommended in rickets vary from five to ten thousand Oslo rat units daily.[5, 6, 7] It is very evident that such amounts of Vitamin D in the form of cod liver oil represent large and generally intolerable quantities of the oil and make the need of some suitable concentrate highly desirable.

An abundant quantity of Vitamin A is felt by most physicians to be fully as important as a sufficient amount of Vitamin D. Mellanby and Green,[8] Sherman and Burtis,[9] Prather et al,[10] all offer evidence to show the importance of Vitamin A in helping general growth, development of organs, and in preventing infection. Just how much Vitamin A is needed, in addition to that taken with the natural food of the child, may not be determined, but we cannot fail to believe it important, and consequently cannot help but favor some form of therapy which insures its presence with Vitamin D.

Among the anti-rachitic agents which we must consider as concentrates are, first, viosterol (irradiated ergosterol); second, concentrates of cod liver oil; third, cod liver

†Dr. Barnes is a graduate of the University of Michigan Medical School, 1920. He limits his practice to pediatrics.

oils with viosterol; fourth, fish liver oils themselves much richer in Vitamin A and Vitamin D than plain cod liver oil (viz., halibut or burbot liver oil); and fifth, the possible combination of carotin to furnish Vitamin A, and viosterol or a cod liver oil concentrate to furnish Vitamin D.

Viosterol (irradiated ergosterol) has held the limelight for the past few years and has been markedly popularized through much advertising both to the layman and to the physician. The dramatic nature of the discovery that by irradiating a relatively inert substance (ergosterol) with ultra violet light it could be endowed with physiologic properties appealed to the imagination, and incidentally it produced a concentrate easy to administer in large doses. From a laboratory standpoint viosterol was justified by the fact that when rats were rendered rachitic by standard rickets-producing rations they were healed by viosterol in the same way as by cod liver oil. Thus, viosterol and cod liver oil were thought to possess identical anti-rachitic properties when administered in amounts representing equivalent numbers of rat units of Vitamin D and has in consequence been popularized as a synthetic substitute for cod liver oil. In a study[11] which we reported in 1930 and from confirming reports of others, notably DeSanctis and Craig[12, 13] it became evident that viosterol was not equal, unit for unit, with cod liver oil in preventing and curing rickets. These and other reports[14, 15] resulted in an increase in potency of viosterol from 100 D., *i.e.*, one hundred times the Vitamin D value of standard cod liver oil as represented in rat units of Vitamin D, to 250 D. In spite of the popularity which viosterol has achieved, however, we have continued to feel that the natural antirachitic vitamin of cod liver oil was to be preferred.

Recently Steenbock, who turned his patents for the manufacture and sale of viosterol over to the Wisconsin Alumni Research Foundation, working with Halpin and others,[15] has come to the conclusion that irradiated ergosterol is not Vitamin D as represented in cod liver oil, and did not act to cure rickets in all species (*i.e.*, chickens in this study) as did cod liver oil. This would seem to make the ultimate fate of viosterol somewhat uncertain and support the contention of those who have maintained it to be inferior to the natural Vitamin D in preventing and curing human rickets.

A very common objection to the use of viosterol was that it contained no Vitamin A, so helpful in promoting growth and health, and that by supplanting cod liver oil it was robbing the infant and young child of this. To meet this objection and to fulfill the requirements of those who felt that Vitamin A and Vitamin D were mutually helpful it has been offered in combination with cod liver oil—*i.e.*, enough viosterol is added to a good grade of cod liver oil to raise the Vitamin D potency of the oil, as measured in rat units, two or three times. Our experience three years ago[11] with a group of infants fed cod liver oil fortified with irradiated ergosterol led to the conclusion that these infants were no better off than if they had been given plain cod liver oil in the dose used. DeSanctis and Craig had a similar experience and now Steenbock, Halpin, et al report similar results. The additional benefit from adding viosterol to cod liver oil seems to be very slight.

Certain fish liver oils are rich in Vitamin A and Vitamin D—much richer than cod liver oil. Halibut liver oil and burbot liver oil are notable among these. Halibut liver oil, which is offered us as a therapeutic agent as "haliver oil" contains about 100 times the Vitamin A and fifteen to twenty times the Vitamin D of plain cod liver oil. While there have not been, so far as I have been able to determine, any reports of its use in clinical studies, we have every reason to believe that it represents Vitamin A and Vitamin D just as found in cod liver oil. Until recently no commercially satisfactory way had been found for extracting the oils. As a plain oil it furnishes an abundance of Vitamin A but unless proper dosage is used may not give sufficient Vitamin D, *i.e.*, it is relatively so much richer in Vitamin A than in Vitamin D that while two minims of the oil furnishes as much Vitamin A as three teaspoonfuls of cod liver oil it will only furnish as much Vitamin D as is present in about 30 to 40 minims of cod liver oil. To make up this discrepancy it is offered in combination with viosterol. Just how satisfactory this will be remains to be seen. The exact value of viosterol is, we feel, quite uncertain and such evidence as we have does not lend support to the idea that it will augment halibut liver oil unless given in large amounts. If the amounts are too large the danger of toxic effects of viosterol must be considered.

CHART 1. SUMMARY OF AVERAGE VALUES FOR EACH DOSAGE OF VITAMIN D

Vitamin D Units (Oslo) Daily	Duration of Treatment (Weeks)	Blood		CaXP	Body Weight of infants in lbs.
		Calcium in milligram per c.c. of serum	Phosphorus in milligram per c.c. of serum		
4,000	0	10.9	3.4	37.0	18.5
	2	11.6	5.5	63.9	19.2
	4	11.4	5.7	65.0	19.5
	6	11.5	6.0	69.0	19.7
	8	11.2	5.8	65.0	20.1
	10	10.9	5.9	64.3	20.2
8,000	0	9.7	3.4	33.0	15.3
	2	10.8	4.7	50.8	15.9
	4	11.1	5.2	57.7	16.2
	6	11.0	5.5	60.5	16.8
	8	11.0	5.6	61.5	17.1
12,000	0	9.5	3.4	32.3	14.4
	2	10.9	5.7	62.1	15.1
	4	11.5	5.8	66.6	15.5
	6	11.3	5.8	65.5	16.1
	8	10.4	5.8	60.4	16.5

Specimens labelled as Cod Liver Oil Concentrates have been available for many years. Nelson and Walker of the Department of Agriculture[16] in a comprehensive examination of twenty-nine samples of cod liver oil tablets, representing seventeen brands, found that only two contained therapeutic quantities of Vitamin A and D in the doses prescribed. This did not include tablets which have been recently marketed. However, Marcus[17] has shown that Vitamin A is unstable in the presence of finely divided solids so it is probable that concentrates are best prepared in oil solutions or in capsules. Seven concentrates were assayed by Nelson and Walker and four were found to be of sufficient potency to be classed as concentrates, while three were found to be almost entirely devoid of Vitamin A and not to contain more than one-tenth the Vitamin D of cod liver oil. Munsell and Black,[18] in their examination of a commercial product described as an alcohol-soluble extract of cod liver oil, and used in pharmaceutical preparations as a substitute, found it to contain no Vitamin A and calcifying properties no greater than cod liver oil.

It is easy to see the reason for the old cod liver oil concentrates not attracting our interest. Only recently have satisfactory commercial methods for the manufacture of cod liver oil concentrates been found. Approximately ten years ago Steenbock and Boutwell,[19] Drummond and Coward,[20, 21] and Zucker[22, 23] demonstrated that the fat-soluble vitamins could be extracted and Zucker prepared a potent Vitamin D concentrate of cod liver oil. Present conditions, however, are such that concentrates of cod liver oil which retain their potency, which permit the giving of small doses and which are not prohibitive in cost are available. Clinical studies of two of these were made during the past Winter and Spring with most excellent results.

The first preparation used was a cod liver oil concentrate which was prepared by Dr. F. W. Heyl, of Upjohn Company. It contained, when diluted with corn oil and given in a daily dose of six drops, 4,000 units of Vitamin D and 10,000 units of Vitamin A; when twelve drops were given daily, 8,000 units of Vitamin D and 20,000 units of Vitamin A and when eighteen drops were given daily, 12,000 units of Vitamin D and 30,000 units of Vitamin A. These dosage levels were used since it has been felt that two to three times as much Vitamin D is necessary to cure rickets as to prevent it. Three groups of rachitic infants were treated, one consisting of thirteen infants, a second of fourteen, and a third of fifteen. They were carefully watched as to diet and medication, receiving proper amounts of milk, orange juice and the cod liver oil concentrate. Chart 1 shows curves made of the three groups giving average blood calcium and phosphorus and calcium-phosphorus products for each group, the determinations being made every two weeks. You will note that all dosage levels were adequate and that the patients were promptly cured. Individual consideration of the patients would show

that in every case the blood calcium and phosphorus returned to normal within two weeks, and some of the rickets was very severe. The preparation was well tolerated by all and the parents were enthusiastic about the improvement of the children, though treatment meant the unpleasantness of blood studies. It was administered with orange juice and while it retained the taste and odor of cod liver oil, being given in such small quantities, no distaste was noted. It has the very genuine advantage of permitting large dosage of Vitamin D and Vitamin A where necessary and represents both the natural vitamins of cod liver oil.

Another group of fifteen rachitic infants was given "Vitamin D Milk," *i.e.*, milk homogenized with the Zucker cod liver oil concentrate, manufacture of which is now controlled and tested by Columbia University. The amount used provided 1,500 rat units (Oslo) or 150 rat units (Steenbock) of Vitamin D (the Vitamin D equivalent of three teaspoonfuls of cod liver oil) per quart. The Zucker concentrate contains a negligible quantity of Vitamin A, hence it is given in a natural food rich in this necessary Vitamin A factor. The concentrate, when homogenized with whole milk is tasteless. It was well tolerated by the rachitic infants, all of whom made rapid recoveries. Some X-rays showed calcification beginning at the end of the second week of treatment. The objection to this method of administration is that infants do not all take a quart of milk. The group we studied took from twenty-four ounces of milk with 1,125 rat units (Oslo) or 112.5 rat units (Steenbock) of Vitamin D to one quart with 1,500 Oslo rat units or 150 Steenbock rat units of Vitamin D daily. In spite of this variation in dosage all recovered promptly. It may be necessary to provide two grades of this milk if it is to be used, one with 1,500 Oslo units or 150 Steenbock units and one with 3,000 Oslo rat units or 300 Steenbock units of Vitamin D per quart. However, it is intended to be used as a prophylactic and not as a therapeutic agent, though it worked very well in the latter rôle. It will undoubtedly come into competition with milk, which contains Vitamin D, obtained from cattle fed irradiated yeast. It will be interesting to see the outcome. Personally, while the status of irradiated ergosterol is so uncertain, we prefer the natural Vitamin as furnished in the Zucker concentrate.

The last mentioned concentrate concerns the possibility of a combination of carotin (pro-Vitamin A) with a Vitamin D concentrate—either viosterol or the Zucker concentrate. Viosterol as stated before offers considerable uncertainty for the future. The Zucker concentrate would provide Vitamin D and if we are sure of our ground as to the physiologic effects of these vitamin products the combination seems to have merit.

In summing up it is apparent that several good preparations have recently appeared on the market. Viosterol, the best known, possesses undoubted calcifying properties, but late studies prove it not to be Vitamin D as present in cod liver oil and to be inferior to the latter in the treatment and prevention of human rickets. Halibut liver oil may be considered a natural concentrate very rich in Vitamin A but less so in Vitamin D. If the proper amounts are given so that sufficient Vitamin D is taken, no objection need be offered, though as yet no clinical confirmation of this has been published. In such quantities it is expensive, but this objection may be met by the manufacturer. The combination of halibut liver oil with viosterol has less merit than the oil plain, since it introduces viosterol as a substitute for Vitamin D. The first cod liver oil concentrate reported was rich in Vitamin A and Vitamin D. It was very effective in curing human rickets, was well tolerated and should be a satisfactory substitute for plain cod liver oil. The dose can be regulated as the physician wishes and should be a valuable aid in the treatment of the disease. It offers all the practical advantages claimed for viosterol, except taste, and contains the natural Vitamins A and D as found in cod liver oil.

The Zucker cod liver oil concentrate was rich in Vitamin D, but contained almost no Vitamin A. It, therefore, is best given in whole milk, which is rich in Vitamin A. It affords an easy way to insure the administration of Vitamin D with Vitamin A and the lime salts of milk so necessary for bone growth. It is tasteless and retains its antirachitic potency as shown by the rapid healing of rachitic infants when fed upon it. As a prophylactic agent it seems to have a good deal of merit, particularly if it could be offered in two grades, one with 1,500 Oslo units (150 Steenbock units) and the other with 3,000 Oslo units (300 Steenbock units)

of Vitamin D per quart and at an attractive price.

BIBLIOGRAPHY

1. Clouse, R. C.: Vitamin D. J. A. M. A. (July 23), 1932, 99:301.
2. Reports of the Council. Average Optimum Dosage of Cod Liver Oil. J. A. M. A. (January), 1932, 98:316.
3. Hess, A. F.: J. A. M. A., 94:1886.
4. Hess, A. F.: J. A. M. A., 91:787.
5. Hess, J. H., Poncher, H. G., Dale, M. L., and Klein, R. L.: Viosterol (irradiated ergosterol). J. A. M. A., 95:316.
6. May, E. W.: Prevention of rickets in premature infants by the use of viosterol 100 D. J. A. M. A. (April), 1931, 96:1376.
7. Poncher, H. G.: Clinical Use of Viosterol. J. Mich. State Med. Soc., April, 1931, 30:258.
8. Mellanby, E., and Green, H. N.: Vitamin A as an anti-infective agent; its use in treatment of puerperal septicemia; preliminary communication. British Med. Jour. (June 1), 1929, 1:984-986.
9. Sherman, H. C., and Burtis, M. P.: Vitamin A in relation to growth and to subsequent susceptibility to infection. Proc. Soc. Exper. Biol. and Med. (May), 1928, 25:649-650.
10. Prather, E. O., Nelson, Martha, and Bliss, A. R.: Viosterol and cod liver oil. Am. J. Dis. Children (July), 1931, 42:52.
11. Barnes, D. J., Brady, M. J., and James, E. M.: The comparative value of irradiated ergosterol and cod liver oil as a prophylactic antirachitic agent when given in equivalent dosage according to rat units of Vitamin D. Am. J. Dis. Child. (January), 1930, 39:45.
12. DeSanctis, A. G., and Craig, J. D.: Comparative value of viosterol and cod liver oil as prophylactic antirachitic agents. J. A. M. A. (April), 1930, 94:1285.
13. DeSanctis, A. F., and Craig, J. D.: Study of prophylactic value of various antirachitic agents. New York State J. Med. (Septemher), 1931, 31:1133.
14. J. A. M. A., 1930, 95:1021.
15. Steenbock, H., Kletzein, S. W. F., and Halpin, J. G.: The reaction of the chicken to irradiated ergosterol and irradiated yeast as contrasted with the natural Vitamin D of fish liver oils. J. Biol. Chem. (July), 1932, 97:249.
16. Nelson and Walker: J. A. M. A., 1932, 98:1263.
17. Marcus, J. K.: The destructive action of finely divided solids on Vitamin A. J. Biol. Chem., 1931, 90:507.
18. Munsell and Black: J. Am. Pharm. Asso., 17:139.
19. Steenbock, H., and Boutwell, P. W.: The extractability of the fat-soluble vitamin from carrots, alfalfa and yellow corn by fat solvents. J. Biol. Chem., 1920, 42:131.
20. Drummond, J. C., and Coward, K. H.: Nutrition and growth on diets devoid of true fats. Lancet (October), 1921, 2:698.
21. Drummond, J. C., Channon, H. J., and Coward, K. H.: Studies on the chemical nature of Vitamin A. Bio. Chem. J., 1925, 19:1047.
22. Zucker, T. F.: Further observations on the chemistry of cod liver oil. Proc. Soc. Exper. Biol. and Med., Vol. 20, 1922-23.
23. Zucker, T. F., and Matzner, M. J.: Pharmacological action of the antirachitic active principle of cod liver oil. Proc. Soc. Exper. Biol. and Med., Vol. 21, 1923-24.

ABDOMINAL DRAINAGE

ARTHUR C. HENTHORN, M.D.†
ST. JOHNS, MICHIGAN

When the staphylococcus albus, the streptococcus or the colon bacillus, the three most common types of abdominal infection, leave their normal habitat and attack the serous membranes of the abdominal viscera, whether it be in the form of a general peritonitis, or the formation of a localized peritonitis or omentitis, it usually calls for abdominal drainage, for they are of the pus-producing type of microörganisms.

It does not seem to matter much whether the primary lesion is in the appendix, gall bladder or tube, or whether it has passed directly through the blood stream or the lymphatics to the omentum, the resulting pathology is the same.

A few years ago when the surgeon opened an abdomen and found pus in the abdominal cavity he was reasonably sure of obtaining satisfactory results, if he could establish proper drainage, and this would probably be true today if we only had the staphylococci and colon bacilli to deal with, but when we are dealing with a streptococcus the results are not satisfactory.

When a drain is introduced into the abdomen, certain results are constant, whether it be tube or gauze. There is a period, from twelve to twenty-four hours, of a moderately profuse serous discharge, which may be cloudy or perhaps blood stained. After this time the discharge lessens and the drain is usually removed. If the drain is left in place, infection may occur due to outside contamination, and quoting "Yates"—(As the inflammatory condition increases, a fibrinous exudate is formed, and there is more intense local congestion and some edema. The serosa loses its lustre and is finally covered with opaque plastic fibrin. This fibrin persists in the presence of smooth drains for at least seven days.) Gauze, however, acts differently. The fibrin becomes incorporated in its meshes with an ingrowth of granular tissue, so that, when the gauze is removed, it leaves the tract rough and bleeding instead of a smooth yellowish surface.

The substances used in drainage of the abdomen have been many, including glass, metal, gutta-percha, hard rubber, soft rubber and gauze, but the soft rubber tubing, the rubber tissue drain and the well known cigarette drain are the most commonly used today—although glass or hard rubber are

†Dr. Henthorn was graduated from the University of Louisville, Ky., Medical Department in 1910. He served his interneship in the New York Infants' Hospital and Hudson Street Emergency Hospital in New York City. He has had post graduate work in the Illinois Post Graduate School, Chicago, and the Mayo Clinic, Rochester. He is at present on the Surgical Staff at Clinton Memorial Hospital, St. Johns, and Visiting Staff of Edward W. Sparrow Hospital, Lansing.

still employed by quite a few operators in enterostomy and colostomy. We should, however, choose a drain which is least irritating to the tissues, which are already inflamed.

The question of when to drain the abdomen has been discussed since the advent of abdominal surgery but as yet we have no rule better than the one laid down by Lawson Tait, who said, "When in doubt, drain." It is a very simple matter, and sometimes a very prudent one, to insert a cigarette drain, when, in the performance of an abdominal operation, we notice an abundance of serous fluid in the abdominal cavity, for if there are no pus-forming bacteria present, we will only get a serous or sero-sanguinous discharge for a few days, at which time the drain may be removed and the resulting scar will be very little, if any, larger than with complete closure; whereas, if the fluid should be contaminated or become so during the course of the operation, the use of a drain may keep the surgeon from a very embarrassing position and the patient from the grave.

It has been definitely proven by Sir Berkeley Moynihan and his associates that it is impossible to drain the entire abdominal cavity. They have shown that from six to twelve hours after the insertion of a drain there is formed around the drain a sero-fibrinous exudate which walls off the drain and prevents the intra-abdominal fluids from reaching the sinus tract, and that this sero-fibrinous exudate organizes after a few days, forming a true sinus. It is, therefore, evident that the only benefit derived directly and immediately from the drain insofar as general abdominal drainage is concerned, is from the tip of the drain or from the fenestrations, provided the cavity is of sufficient depth. Later when the tract is organized, it provides a path of least resistance for the fluids of the infected cavity.

It is interesting to know that if a drain is placed in the general peritoneal cavity of a dog and left for eighteen to twenty-four hours, and then with a hypodermic needle you inject just below the ensiform cartilage into the peritoneal cavity a solution of methylene blue or gentian violet, none of the color will come out through the drain, regardless of the amount of fluid injected, even to distending the abdomen!

The indications for the use of a drain may be stated as follows:

To isolate a part of the peritoneal cavity, as in appendiceal abscess, severe localized peritonitis or omentitis or as a temporary drain in general peritonitis.

To prevent hemorrhagic oozing, by its pressure effect.

In expected escape of fluids, as in cholecystectomy.

However, each case is a problem unto itself and must be decided upon by the individual operator, but it should be borne in mind that with an acute abdominal condition, accompanied by free fluid in the peritoneal cavity, a drain can do no harm even though the acuity seems trivial. This is to be especially remembered when operating on children, for acute abdominal conditions in children are far more apt to need drainage than like conditions in adults.

The only real contraindication to the use of a drain is in gastric and intestinal anastomosis. Drains following these operations are practically always disastrous.

Posture following abdominal drainage accomplishes no benefit so far as drainage is concerned and irrigation through drains is a dangerous procedure.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

THE YEAR 1932

The year 1932 recorded the lowest death rate, the lowest infant mortality rate, and the lowest typhoid fever, diphtheria, and tuberculosis death rates in the history of Michigan. The birth rate, also, dropped to a new level.

A few of the new rates follow with those for 1931 and 1922 for comparison:

	1922	1931	1932
Death rate	11.2	10.0	9.7
Birth rate	23.1	18.4	16.6
Infant death rate	74.7	57.3	54.4
Diphtheria death rate	15.9	3.5	2.1
Measles death rate	6.0	0.6	3.6
Scarlet fever death rate	5.6	2.5	2.2

Tuberculosis death rate (all forms)	68.1	53.9	48.1
Tuberculosis death rate (pulmonary)	57.3	45.9	41.0
Typhoid fever death rate	4.9	1.5	1.1
Whooping cough death rate	6.0	3.9	3.9

TYPHOID FEVER CASE REPORTING

It is well known that there has been a great reduction in typhoid fever mortality during the last 30 years. In 1900 the death rate from this disease in Michigan was 34 per 100,000; in 1932, it was 1.1 per 100,000.

It is generally conceded that in any large number of cases of typhoid fever there occur about 10 clinical cases for every death resulting. Thus, we may use the number of cases reported per death as a measure of the completeness of reporting. It is well known that there are quite a few cases of typhoid which are not reported, just as there are of other reportable diseases. Failure to report in most instances is not deliberate on the part of the physician but rather an oversight or misunderstanding. Moreover, there are a few cases even of typhoid fever which do not come to the attention of a physician. Judging by this standard, that is 10 cases for every death, reporting in Michigan for 30 years or more was not greatly improved.

In 1900 there were 6.2 cases reported for each death. The degree of reporting varies up and down a little from this figure, but at no time from 1900 to 1921 was it better than 6.2. In 1922 there were 6.4 cases reported per death occurring. While the average number of cases reported per death for the years 1921-1931 inclusive is somewhat higher than that for the period previous, yet in no single year does it go above the mark of 6.4.

In 1932 the Michigan Department of Health instituted an intensive follow-up system. All laboratory reports showing a positive Widal were followed until some definite answer was obtained from the physician in charge, as to the diagnosis. This resulted in the discovery of many cases that would otherwise not have been officially reported.

An epidemiological history was obtained in each case, which called for a record of the contacts in the family, and these in turn revealed many secondary cases in the family which would not have been reported. Oftentimes the health officer or the physician gave as a reason for not reporting such cases that he did not think it necessary to report subsequent cases in a family where one case had already been reported.

Another cause for failure to report some cases was the confusion resulting from sending a case from a rural district to a city for hospitalization. In such cases the township or village health officer and the attending physician in the district in which the case resided often did not report, thinking that report would be made from the city where the patient was hospitalized. Likewise the attending physician in the hospital and the city health officer assumed that the case had been reported by the district from which it came. Quite a few such cases were followed up and reports obtained that would not have been secured otherwise. It is the department's wish in such instances to have the case reported both by the district from which it came and the city in which hospitalization occurs. Such duplicate reports are looked for and the case allocated to the district in which it resides.

As a result of this intensive effort, the number of cases reported in 1932 per death occurring was 9.1, a total of 513 cases and 56 deaths. It may be that during this year typhoid fever had a lower fatality rate than usual but inasmuch as the number of cases reported per death occurring is so much more than for any year on record it is fair to conclude that a far greater percentage of cases were reported.

Physicians and health officers are asked to continue their coöperation in reporting every case that comes under their care.

C. D. B.

GERMAN MEASLES

During 1932 there were 42,129 cases of measles reported, the largest number ever recorded in any one year in Michigan. Likewise there was the greatest number of scarlet fever cases ever reported, 15,255. This high incidence of both diseases is continuing on into 1933.

Along with the high incidence of scarlet fever and measles there has appeared another disease, German measles or rubella, which is often confused with either scarlet fever or measles. German measles is at present occurring in local outbreaks scattered throughout Michigan. Wherever two or three of these diseases occur in the same district simultaneously, there are bound to be cases in which the diagnosis is somewhat confusing. Physicians should be on the lookout for any or all of these diseases.

Measles is usually the most characteristic and liable to be least confusing. German

measles may often be confused with a mild case of scarlet fever. There are, however, certain distinguishing symptoms which can be found in most cases. A mild case of scarlet fever does not usually show a rash on the face or head; German measles usually does during the initial stages. In German measles the postcervical lymph nodes usually are palpable as small "shoe buttons." German measles may show a very slight pharyngitis, but never severe. Although the typical German measles rash is somewhat mottled or blotchy in appearance it may sometimes be nearly enough uniform to be confused with scarlet fever.

C. D. B.

CHILD HYGIENE

Women's Classes are being held in Tuscola, Monroe and Washtenaw Counties with unusually good attendance in all three counties. Each week fourteen classes are being conducted in Tuscola County, fourteen in Washtenaw County and thirteen in Monroe County.

Child Care Classes are being held in Muskegon, Saginaw, Clinton, Lapeer and Genesee Counties.

The prenatal nursing service which was begun in Midland County during the month of January is making excellent progress. Already fifty-six prospective mothers are under supervision. A similar service which was completed in Allegan County in January is showing permanent results, as the nurses in the County Health Unit are carrying on work among prospective mothers in that county.

POISONING FROM DRINKING RADIUM WATER

Alexander O. Gettler and Charles Norris, New York, present the first case on record of fatal poisoning from the consumption of water containing traces of radium salts in which the presence of radium in the bones and tissues was definitely proved by scientific laboratory procedures. Death was due to pathologic lesions brought about by the radium which entered the system, by drinking water for a few years, which was said to contain 2 micrograms of radium in every 2 ounces (60 c.c.) of water. The presence of the radium was proved by both the electroscopic and the photographic method. The quantity of radium in the bones and soft tissues was determined by the emanation method. The entire skeleton contained 73.27 micrograms of radium, the soft tissues only 0.39 micrograms. The total amount of radium, therefore, in the entire body was 73.66 micrograms. Radium salts (or radioactive substances in general), when introduced into the blood stream, become detrimental to health and fatal to life, and therefore the use of foods or beverages containing radium salts should be prohibited.—Journal A. M. A.

CHRONIC SINUS DISEASE

Ferris Smith, Grand Rapids, Mich., states that the present, generally practiced management of chronic sinus disease is unsatisfactory to both the patient and the consultant. It is vitally important that the rhinologist follow a management which will afford proper relief in cases presenting general symptoms of chronic sepsis, in those with local signs and symptoms, and in the cases with secondary bronchitis and asthma. He uses the method described by Sewall of ligating the ethmoidal and sphenopalatine vessels to render the intranasal field practically bloodless. He has performed over 500 operations by this method with five deaths. Two of these fatalities were of elderly asthmatic patients who died of sudden cardiac failure, one eight hours following operation and one twenty-six hours later. One patient died of necrosis of the septum with marked sepsis. One succumbed to a necrosis of the cribriform plate with secondary meningitis about six weeks following operation. One died of streptococcic meningitis ten hours following operation. The author does not feel that the deaths of the latter and the two cardiac patients can properly be charged to the surgical procedure.—Journal A. M. A.

TUMOR FORMATION: PATHOLOGIC CHANGES CONSEQUENT TO INJECTION OF OILS UNDER RECTAL MUCOSA

Curtice Rosser and Stuart A. Wallace, Dallas, Texas, found that twenty strictures of the rectum in patients who had previously received injections of oil under the rectal mucosa for hemorrhoids were made up of coalescing, firm, yellowish lumps. Sections were available from twelve; all indicated the presence of retained oil. Oil stains of five sections demonstrated vegetable oil mixed with paraffin oil in two and paraffin alone in three. Retention of injected oil and consequent fibrosis are in Texas the chief etiologic agents responsible for stricture in persons who have previously received injections. The same phenomena are apparently responsible for isolated lump formation in the rectum. Olive oil produces no special tissue irritation and is not a probable cause of oil tumor. Mineral oil did not fail to produce a tumor when injected, and the authors see no reason to indict individual susceptibility as a factor in man. Mineral oil was apparently the prime agent in the chemical strictures of their series, and they have no doubt that its tendency to produce local irritation plus its known migratory and coalescing ability is responsible. Cottonseed oil apparently holds an intermediate position as a tumefacient, the fibrosis and oil retention being definite though less marked than the reaction from paraffin oil. Phenol plays no appreciable part in the production of eleomas.—*Journal A. M. A.*

TREATMENT OF MALIGNANT TUMORS: ADVANTAGES OF WEAK HEAVILY FILTERED RADIUM NEEDLES

Charles L. Martin, Dallas, Texas, believes that modern developments in radium therapy are based on two facts: first, that radiation of great penetrating power and short wave-length has less necrotizing effect and a greater selectivity for radio-sensitive cells than radiation of low penetration and long wavelength, and, second, that the selectivity of radiant energy for radiosensitive cells is increased when the duration of the exposure is increased with a corresponding decrease in intensity. The implantation of multiple heavily filtered radium needles of low strength over long periods of time increases the margin of safety for normal tissue and causes the rapid regression of malignant tumors of a relatively high grade of radioresistance without sloughing.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

APRIL, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

POST-GRADUATE OPPORTUNITIES BROUGHT TO OUR DOOR

In the matter of malpractice, courts have asked that the service of the defendant physician be similar to that rendered by members of the medical profession in the same or similar localities. In other words, the accused physician, if located in an out-of-the-way place, was not expected to render the same standard of service as those associated with the recognized medical centers.

A recent ruling by the supreme court of Connecticut declares itself against the restriction of skill usually granted in extenuation of the physician in the more remote districts. "Under modern conditions," declares the court, "there is perhaps less reason than formerly for the restriction of the skill required to that possessed by physicians and surgeons in the same locality, since there is no lack of opportunity for the physician or surgeon in smaller communities to keep abreast of the advances made in his profession and to be familiar with the latest methods and practices adopted."

Whatever the status of law so far as advancement is concerned, the ruling of the Connecticut supreme court recognizes the progressive nature of medicine. This comes at a time when preparations have been completed by the post-graduate department in medicine of the University of Michigan and the Michigan State Medical Society, for annual intensive post-graduate studies on special subjects of medicine, surgery and allied specialties as announced in the March number of this JOURNAL.

Courses in Diseases of the Heart and Circulatory System will be given at the University Hospital, April 3-7, the clinicians giving this course are Doctors Frank N. Wilson, Paul S. Barker, D. Murray Cowie (Heart Conditions in Children), Mrs. D. S. Walker (Diet in Cordial Failure), Dr. Fred J. Hodges, The Use of the Fluoroscope in study of the Heart. Arteriotic Heart Disease, Dr. R. L. Novy; Cardiac Pain and Coronary Thrombosis, Dr. Hugo A. Freund. Courses for May and June will be announced in the May JOURNAL.

GROUP PRACTICE

One's opinion of group practice of medicine is likely to depend upon whether he is a member of the so-called "group," or not. We do not wish to assume the role either of advocate or opponent. If our observations are of any value, they are to the effect that the group is an organization, an organic whole, with a dominant personality, around whom (if we may carry the metaphor farther) are recessive personalities. This in no sense implies the idea of superior and inferior. There are splendid minds who prefer to be relieved of details, especially of financing, and to work under leadership. This may be verified by reference to any of the well-known clinics. When we consider the long history of medicine, the group practice

idea has not developed very widely nor extensively. Group clinics may increase in number from economic necessity since they seem to insure immediate income to their members. A salary reasonably sure, however small, never had a greater appeal than at the present time.

Of late there has been a tendency to disparage individualistic tendencies in medicine. It is true, medicine has been slow to adopt the corporate methods of business. We wonder, however, if the profession has not been justified in this attitude when we witness the nation-wide debacle in business and industrial affairs. Individualism in medicine evidently has survival value or it would not have persisted throughout the centuries. Perhaps this lies in the important and peculiar relations that have always existed between doctor and patient; perhaps there is something after all in that professional secrecy which is guarded by common law under the technical term, *privileged communication.* The persistence of individualism may be due again to the independent type of mind that has chosen medicine as a profession. At all events we have it and we are not at all convinced that it is not an advantage to both patient and physician.

The physician considering the matter of merging his identity into the group will do well to look to the possibilities of the future. While we know of medical groups the relations of whose members appear ideal, whose interests seem mutually satisfactory, we can sense a possibility in which a member might find it to his advantage to sever himself from the group, in which case he would have to begin practice all over.

Regarding the intellectual advantages of group effort probably no strong argument can be advanced for either over the other. We naturally look for light and leading to the medical colleges and universities where study and research are stressed, yet when we consider the work of such men as William Harvey, Sydenham, John Hunter, William Beaumont, Morton, Sims and James MacKenzie and a galaxy of other lone workers, we feel that medical progress has not suffered from individualism.

TO AN UNKNOWN DOCTOR

In many of the nations of the world there are today monuments to their Unknown Soldier. The form and design of the monuments differ according to the customs and tastes of the nationality, but the sentiments expressed are always the same, that of love and fidelity to the men of the nation who have given up their lives for a great cause.

Last Thursday the people of Minnesota went up to a town called LeSueur, and there dedicated a monument to a beloved old pioneer physician who had come into that valley seventy years ago and had ministered to the sick in those pioneer days, when Indians outnumbered the white people.

The pioneer physician was Dr. William W. Mayo, a physician who in 1862 made a trip on horse-back to LeSueur from New Ulm, seventy-five miles up the valley, to aid the white settlers who had been wounded in the New Ulm massacre.

He was the father of two distinguished sons, one Dr. William J. Mayo, and the other Dr. Charles H. Mayo, than whom there are none more widely known in the world today.

We wondered, as we learned of the unveiling of that monument, if it would have been raised to the old Doctor if he had not reared those two famous sons. What he did for humanity was just as great if he had been an obscure man, but the chances are that the acknowledgment of the public would not have been so definite for a man less widely known, because of those sons—a vicarious fame.

All down through the history of the many frontiers that have made up the story of our nation, have there been faithful physicians, little less than martyrs to their profession, who have been forever forgotten. Think of the thousands of times that doctors have forced their way through snowdrifts, have gone on foot, have driven slow, worn-out horses, have almost frozen in their sleighs or cutters that they might save a life or relieve suffering. The name? The pathos of the story is that the names have been forgotten, except for contemporaries.

And so we propose that American people erect markers to The Unknown Doctor, that shall be as a tribute to all the doctors who have suffered manfully for the sake of the mission of their profession. To us, there is something noble, something inspiring, yes, and something pathetic about the physician who gives his life for his work.—*From the Shawano County (Wisconsin) Journal.*

THE WRITINGS OF THOMAS JEFFERSON

Edited by Thomas Jefferson Randolph. Volume IV, Second Edition. Published by Gray and Bowen, New York, 1830

The following letter was written by Thomas Jefferson one hundred and twenty-six years ago. It is interesting not only as throwing light on Jefferson's mental outlook but as a means of giving an idea of American medicine of the time. The editor is indebted to Dr. Milton A. Darling of Detroit for the transcription of Jefferson's letter.

LETTER LV

Washington, June 21, 1807.

To Doctor Wistar.

Dear Sir:

I have a grandson, the son of Mr. Randolph, now about fifteen years of age, in whose education I take a lively interest. . . . I am not a friend to placing young men in populous cities, because they acquire there habits and partialities which do not contribute to the happiness of their after life. But there are particular branches of science, which are not so advantageously taught anywhere else in the United States as in Philadelphia. The garden at the Woodlands for Botany, Mr. Peale's Museum for Natural History, your Medical School for Anatomy, and the able professors in all of them, give advantages not to

be found elsewhere. We propose, therefore, to send him to Philadelphia to attend the schools of Botany, Natural History, Anatomy, and perhaps Surgery; but not of Medicine. And why not of Medicine, you will ask? Being led to the subject, I will avail myself of the occasion to express my opinions on that science, and the extent of my medical creed. But, to finish first with respect to my grandson, I will state the favor I ask of you, and which is the object of this letter.

This subject dismissed, I may now take up that which it led to, and further tax your patience with unlearned views of medicine; which, as in most cases, are, perhaps, the more confident in proportion as they are less enlightened.

We know, from what we see and feel, that the animal body is in its organs and functions subject to derangement, inducing pain, and tending to its destruction. In this disordered state, we observe nature providing for the re-establishment of order, by exciting some salutary evacuation of the morbific matter, or by some other operation which escapes our imperfect senses and researches. She brings on a crisis, by stools, vomiting, sweat, urine, expectoration, bleeding, etc., which, for the most part, ends in the restoration of healthy action. Experience has taught us also, that there are certain substances, by which, applied to the living body, internally or externally, we can at will produce these same evacuations, and thus do, in a short time, what nature would do but slowly, and do effectually, what perhaps she would not have strength to accomplish. Where, then, we have seen a disease, characterized by specific signs or phenomena, and relieved by a certain natural evacuation or process, whenever that disease recurs under the same appearances, we may reasonably count on producing a solution of it, by the use of such substances as we have found produce the same evacuation or movement. Thus, fulness of the stomach we can relieve by emetics; diseases of the bowels, by purgatives; inflammatory cases, by bleeding; intermittents, by the Peruvian bark; syphilis, by mercury; watchfulness, by opium; etc. So far, I bow to the utility of medicine. It goes to the well defined forms of disease, and happily, to those the most frequent. But the disorders of the animal body, and the symptoms indicating them, are as various as the elements of which the body is composed. The combinations, too, of these symptoms are so infinitely diversified, that many associations of them appear too rarely to establish a definite disease: and to an unknown disease, there cannot be a known remedy. Here, then, the judicious, the moral, the human physician should stop. Having been so often a witness to the salutary efforts which nature makes to re-establish the disordered functions, he should rather trust to their action, than hazard the interruption of that, and a greater derangement of the system, by conjectural experiments on a machine so complicated and so unknown as the human body, and a subject so sacred as human life. Or, if the appearance of doing something be necessary to keep alive the hope and spirits of the patient, it should be of the most innocent character. One of the most successful physicians I have ever known, has assured me, that he used more bread pills, drops of colored water, and powders of hickory ashes than of all other medicines put together. It was certainly a pious fraud. But the adventurous physician goes on, and substitutes presumption for knowledge. From the scanty field of what is known, he launches into the boundless region of what is unknown. He establishes for his guide some fanciful theory of corpuscular attraction, of chemical agency, of mechanical powers, of stimuli, of irritability accumulated or exhausted, of depletion by the lancet, and repletion by mercury, or some other ingenious dream, which lets him into all nature's secrets at short hand. On the principle which he thus assumes, he forms his table of nosology, arrays his diseases into families, and extends his curative treatment, by analogy, to all the cases he has thus arbitrarily marshaled together. I have lived myself to see the disciples of Hoffman, Boerhaave, Stahl, Cullen, Brown, succeed one another like the shifting figures of a magic-lanthern, and their fancies like the dresses of the annual doll-babies from Paris, becoming, from their novelty, the vogue of the day, and yielding to the next novelty their ephemeral favor. The patient, treated on the fashionable theory, sometimes gets well in spite of the medicine. The medicine therefore restored him, and the young doctor receives new courage to proceed in his bold experiments on the lives of his fellow creatures. I believe we may safely affirm, that the inexperienced and presumptuous band of medical tyros let loose upon the world, destroys more of human life in one year, than all the Robinhoods, Cartouches, and Macheaths do in a century. It is in this part of medicine that I wish to see a reform, an abandonment of hypothesis for sober facts, the first degree of value set on clinical observation, and the lowest on visionary theories. I would wish the young practitioner, especially, to have deeply impressed on his mind the real limits of his art, and that when the state of his patient gets beyond these, his office is to be a watchful, but quiet spectator of the operations of nature, giving them fair play by a well regulated regimen, and by all the aid they can derive from the excitement of good spirits and hope in the patient. I have no doubt, that some diseases not yet understood may in time be transferred to the table of those known. But, were I a physician, I would rather leave the transfer to the slow hand of accident, than hasten it by guilty experiments on those who put their lives into my hands. The only sure foundations of medicine are, an intimate knowledge of the human body, and observation on the effects of medicinal substances on that. The anatomical and clinical schools, therefore, are those in which the young physician should be formed. If he enters with innocence that of the theory of medicine, it is scarcely possible he should come out untainted with error. His mind must be strong indeed, if, rising above juvenile credulity, it can maintain a wise infidelity against the authority of his instructors, and the bewitching delusions of their theories. You see that I estimate justly that portion of instruction, which our medical students derive from your labors; and, associating with it one of the chairs which my old and able friend, Doctor Rush, so honorably fills, I consider them as the two fundamental pillars of the edifice. Indeed, I have such an opinion of the talents of the professors in the other branches which constitute the school of medicine with you, as to hope and believe, that it is from this side of the Atlantic, that Europe, which has taught us so many other things, will at length be led into sound principles in this branch of science, the most important of all others, being that to which we commit the care of health and life.

I dare say, that by this time you are sufficiently sensible that old heads, as well as young, may sometimes be charged with ignorance and presumption. The natural course of the human mind is certainly from credulity to scepticism: and this is perhaps the most favorable apology I can make for venturing so far out of my depth, and to one, too, to whom the strong as well as the weak points of this science are so familiar. But having stumbled on the subject in my way, I wished to give a confession of my faith to a friend; and the rather, as I had perhaps, at times, to him as well as others, expressed by scepti-

cism in medicine, without defining its extent or foundation. At any rate, it has permitted me, for a moment, to abstract myself from the dry and dreary waste of politics, into which I have been impressed by the times on which I happened, and to indulge in the rich fields of nature, where alone I should have served as a volunteer, if left to my natural inclinations and partialities.

I salute you at all times with affection and respect.

Th: Jefferson.

EUTHANASIA

"With reasonable care we can most of us keep this wonderful organization in health so that it will work without causing us pain, or even discomfort, for many years; and may we hope that even when old age comes

'Time may lay his hand
Upon our heart gently, not smiting it,
But as a harper lays his open palm
Upon his harp, to deaden its vibrations.'"

—Lubbock.

THE COUNTRY DOCTOR*

Th' Dōctor comes, th' dōctor goes,
When beck an' ca' is gi'en',
He has his freens, he has his foes,
It's just his natural be'in'.

A never endin' war he fichts,
Wi pain, disease an' time,
An' ever tries tae bring tae richts
Defects o' thee an' thine.

Oors—went through snaw an' drifted roads,
An' walked where cu'dna drive,
An' stopped in rich an' poor abodes
Tae help some soul survive.

A siege o' sma' pox ance he fought,
Wi'oot his sleep or bed,
An' nurse as weel as Dōctor wrought,
An' buried a' its dead.

A typhoid epidemic came,
An' scarlet fever, too,
An' mithers (oh, how sweet th' name)
Wi' bairnies, nae sae few.

An' noo—he's auld an' verra frail,
He haenna lang tae stay,
He's crippled oop, his back is ill,
We kin he's made o' clay.

His life's been spent in sacrifice,
He haenna much tae leave,
He's scarcely 'nough tae keep him nice,
Bit nae inclined tae grieve.

An' he kens weel that Heaven's near,
An' when he'll reach th' gate
He'll happy be, an' wullna fear
Th' future o' his state.

For he'll meet there his freens wha laud,
An' critics that he's known,
They'll a' be there, wi him an' GOD
An' love will be th' throne.

Weelum.

*Dedicated to Doctor Adams, Embro, Ontario.

ABRACADABRA

The poet of the Manchester Guardian pays his respects to technocracy in the following screed:

"Technocracy!" "Technocracy!"
I hail it as a friend,
Though it would be hypocrisy
To say I apprehend
The finer shades of meaning
In this term so newly heard;
I salute it as one leaning
On another bright boss-word!

Technocracy! Technocracy!
From distant U. S. A.
This blessing to democracy
Comes speeding on its way.
They think about things there, they do!
They've worked them out; they know
What wealth there is to share, they do,
And where it ought to go!

Technocracy! Technocracy!
This brain-wave represents
The erudite autocracy
Of engineering gents.
Who says that it would irk to do
The bidding of their law?
We'll all have half the work to do
And twice the cash to draw!

Technocracy! Technocracy!
How brightly rings the call,
With visions of plutocracy
Within the reach of all!
A system most auriferous,
It floats before our eyes;
We hail it with vociferous
And eulogistic cries!

Technocracy! Technocracy! . . .
A horrid doubt breaks in;
For verbal aristocracy
Sometimes has humbler kin.
Is there, by chance, distillable,
If down its weight were shrunk,
That baleful monosyllable
The older, brisker "bunk"?

MEDICAL ECONOMICS

AN ANALYSIS OF THE MINORITY REPORT OF THE COMMITTEE ON THE COSTS OF MEDICAL CARE

H. W. PLAGGEMEYER, M.D.
DETROIT, MICHIGAN

"Organized (in 1927) to study the economic aspects of the prevention and care of sickness, including the adequacy, availability and compensation of the persons and agencies concerned."

This committee was marshalled together over a proposed period of five years to attack a vital social problem, one of the most vital problems facing the American public today. Their report, as presented, may have a most serious effect in the future,

although the medical profession at large has not yet realized its full import.

But the medical profession is compelled this time to be somewhat exercised over this matter, rather than discard it as we have been in the past prone to do about such things—for these reports will be a regular "War of the Roses"—a battle ground in the domain of medical economics for many years to come.

In some sense it is too bad that the time limit laid the matter open to the criticism of haste toward the end, to the point that nine responsible members felt it incumbent upon themselves to produce a Minority report. It is possible that time might have ironed out their dissension, although I am inclined to doubt this, for the variance of the group thought is the same variance as between collectivism on the one hand, and a continuance of individualistic effort, on the other. To put it in a different way, the Majority report would seem to lean sharply toward a tendency to make of itself a Social Service Report or "group" type, whereas the Minority report shows a distinct leaning toward individualism with the family practitioner as key physician, and it is to this minority report that the American Medical Association lends its aid. It is written by doctors, from the standpoint of the doctor, and not from the standpoint of the engineer dealing in mass production. But in all fairness, it must be said at this moment, that both groups put the position of the general practitioner in the center as the ideal correlator or middleman between the family groups on the one hand, and the specialist or specialists, on the other.

Without the remotest attempt at carping criticism, it must be noted that, as the work went on, increasing freedom was given the committee members, until a statement was issued indicating that "reports are issued as the work of the particular staff members preparing them: neither the committee as a whole nor its individual members should be considered responsible for the detailed contents of these publications." No one can doubt the sincerity of this fact-finding Majority. Their fact-finding is absolutely impersonal but their ambiguity as the work went on is in places most confusing. I think, in a sense, that here may lie the crux of the reason for the Minority report, which might however, in the long run, have been absorbed into a total report without dissension.

In this regard, however, one must not overlook the single report of Dr. Sydenstricker, Statistician in the United States Public Health Service, Washington, D. C., and Director of Research, Milbank Memorial Fund, New York City. He refused to sign either report and simply sent in this statement:

"As a member of the Committee, I regret that I cannot see my way clear to sign the final report of the Committee for the reason that the recommendations do *not,* in my opinion, deal adequately with the fundamental economic question which the Committee was formed primarily to consider."

(Signed) Edgar Sydenstricker.

(This report will last longest.)

Despite this voice crying in the wilderness, it remains, however, that two main reports have been made, the one, the Majority report signed by Doctors of Medicine, laymen representing institutions and private interests, Doctors of Public Health and M.D.'s engaged in Public Health Work, six Ph.D.'s engaged in the social sciences and fourteen members representing the public, such as, Winthrop W. Aldrich, President of the Chase National Bank of New York City; Matthew Woll, Vice-President, American Federation of Labor, Washington, D. C.; Homer Folks, LL.D., Secretary, State Charities Aid Association, New York City, etc., etc.—the other, the Minority report signed by eight Doctors of Medicine, the most prominent in the country, and by one Ph.D., The Dean of the School of Medicine, St. Louis University.

The recommendations of this principal Minority group are as follows:

I.

The Minority recommends that government competition in the practice of medicine be discontinued and that its activities be restricted (a) to the care of the indigent and of those patients with diseases which can be cared for only in governmental institutions; (b) to the promotion of public health; (c) to the support of the medical departments of the Army and Navy, Coast and Geodetic Survey, and other government services which cannot because of their nature or location be served by the general medical profession; and (d) to the care of veterans suffering from bona fide service-connected disabilities and diseases, except in the case of tuberculosis and nervous and mental diseases.

II.

The Minority recommends that government care of the indigent be expanded with the ultimate object of relieving the medical profession of this burden.

III.

The Minority joins with the Committee in recommending that the study, evaluation, and coördination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions, and that the coördination of rural with urban services receive special attention.

IV.

The Minority recommends that united attempts be made to restore the general practitioner to the central place in medical practice.

V.

The Minority recommends that the corporate practice of medicine, financed through intermediary agencies, be vigorously and persistently opposed as being economically wasteful, inimical to a continued and sustained high quality of medical care, or unfair exploitation of the medical profession.

VI.

The Minority recommends that methods be given careful trial which can rightly be fitted into our present institutions and agencies without interfering with the fundamentals of medical practice.

VII.

The Minority recommends the development by state or county medical societies of plans for medical care.

These seven points then are the gist of the Minority report.

It might be said in opening this subject for general discussion, that the majority report of the Committee on the Costs of Medical Care still carries the stigmata of a doctorate not essentially medical in origin. This is a Minority report and the public will have to choose the wiser course as outlined by the two reports, for the public is the final judge. We feel that the public should be interested in avoiding the pitfalls of any system which discredits the awards of normal competitive medicine—those rewards which appeal to the highest type of young people and which magnify the values occurring in a selected and normally dignified personnel which should compose the profession. It is our objective to become more closely united and guide public opinion rather than pursue the laissez faire course as heretofore.

The "Cost of Medical Care" for the "Patient of Moderate Means" so far as "High Cost" is concerned does not appear to be solved by this Committee—nor is any tangible suggestion made which will offer immediate relief for this class of patient.

On the contrary the report of the Committee practically proposes to destroy the practice of medicine by converting it to the equivalent of a "machine-made" product, taking it out of the hands of the individual physician, placing its direction in the hands of laymen and subjecting it to greater political and legislative regulation and control. All of this will require more or less legislative enactment by every state, with a possibility of the adoption of as many systems as there are states, the unlimited recognition and extension of full privilcges of all cults, greater confusion than at present exists with our even now differing laws regulating the practice of medicine and the establishment of a paternalistic governmental control of the care of the sick which will tend to destroy every vestige of individual interest to scientific medicine except from a purely laboratory standpoint, as well as create another bureaucracy with new "group" jobs which will stifle the public to death from politics and taxation.

The Committee began its work at a time when conditions were normal (three-quarters of the fact-finding was done before the depression) and in an effort to solve a definite problem confronting us at that time and with a view to providing a means of relief for the so-called "white collar" class who were at that time supposed to be financially unable to obtain adequate medical attention. Since that time as we all know, conditions have changed materially and we are confrontcd at present by a situation in which a very large percentage of our population are unable to pay for adequate medical attention. May I quote from the recent editorial in the Ladies' Home Journal, "Political Medicine"?

"The Journal has commented frequently and hopefully on the studies that have been made during the past five years by the Committee on the Costs of Medical Care. We believed that out of all the effort and expenditure involved there would surely come some solution of the twofold problem presented by the inability of a majority of people to pay present high costs for the cure of illness, and the collateral inability of doctors to earn incomes commensurate with the expense of their training.

"But the mountain labored in vain; it has brought forth a mouse.

"As its major conclusions, the committee recommends, first, 'that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists and other associated personnel—organized, preferably around a hospital, for rendering complete home, office and hospital care'; and, second, 'that the costs of medical care be placed on a group-payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods.

"In other words, state medicine!

"This is the report of the majority of the committee. It is combated by a vigorous minority, which quite rightly points out that 'there is nothing in experience to show that it is a workable scheme or that it would not contain evils of its own which would be worse than those it would accomplish, which ought to be the first object of this committee, the lessening of the costs of medical care.'

"The medical profession has itself long stood in fear of the introduction of state medicine, with the building up of yet another bureaucracy to dictate its every action. The public has even greater reason to fear such a system. Already, according to the committee's statistics, taxation pays fourteen per cent of the nation's total bill for medical care—$514,500,000 out of $3,647,000,000. It is not difficult to conceive that a medical bureaucracy might rival the public school system, or the Army and Navy, in its demands for tax funds.

"The committee was supposed to find some way by which more adequate medical care might be made available to the public at lower cost, but nothing the majority has proposed even points the way. Far better the recommendations of the minority of the committee, who propose 'that government competition in the practice of medicine be discontinued and that its activities be restricted to the care of the indigent and of those patients with diseases which can be cared for only in governmental institutions; to the promotion of public health,' and to the care of the Army, Navy and veterans having war-connected disabilities.

"It is the opinion of the Journal that the accomplishments of this five-year study are to be measured by the minority report and not by the majority with its Utopian and impractical schemes; that the family doctor is the most-efficient and least-expensive source of general health; that state medicine with its demand for compulsory insurance and increased taxation, is in every way to be avoided; that the mass production of health, through any medical hierarchy or bureaucracy, is impossible.

"We have politics messing its often-dirty hands in business, in our schools, in most public affairs and some private ones as well. But may we be preserved from politics in personal health."

To provide a set up which at the present time would attempt to furnish permanently, general and indiscriminate group or clinical medical service to the entire population of the country would be a grave error. We should better Evolute than Revolute!

The present financial stress has already driven many people to hospitals and other clinics who have never before had to seek free medical service. The free medical clinic habit, easily acquired, will offer an additional problem to the hospital, upon the return of employment in Detroit, in the return of these patients to their family or other private physicians. (As a matter of fact the hospitals were already beginning to solve this problem themselves.)

Any permanent plan of "mass production" or supply of medical or hospital service would be an additional menace to the practice of medicine and to the voluntary hospital systems of this country.

The so-called "high costs of medical care" is inextricably tied up with the complexities of modern life and with the existing industrial age of which we are an integral part. The doctor is certainly not getting it. He is getting exactly twenty-nine cents of every medical dollar spent. These things have been touched upon by the committee but they have failed to recognize or have chosen to ignore the fact that the feast and famine practice of our large plants is one big factor in our present difficulty. When we stop to realize that 50 per cent of patients taken care of in one of the city's largest clinics have been from ONE factory it makes us pause and think! The so-called "living wage" is just idle talk—three months work at a good wage and nine months idleness are the pay of a pauper. The factories are not of themselves to blame for the depression, nor is the depression the subject of our discussion, for the report of this Commission will last long after the depression has passed—but these are times when our attention ferrets out some of the major faults. Industrial leaders cannot keep up their present policy of intensive periods of manufacture and idleness—feast and famine. The cost of supporting these industrial giants is too much for the rest of the community for what the community gets out of it.

We would suggest along with this idea that big business would do much better to make a sincere and honest attempt to get its own house in order, to stop organizing and reforming others, and above all things to let medicine and the doctors alone.

Apparently everybody in the lay world wants to organize the doctor and he simply doesn't want to be organized. Big business has tried to organize the very life out of him; industrialists have exploited him to a disgusting point, and would seem now to be making use of this period of bewilderment and fear and inactivity to throw the chains on this man of medicine, to harness him with the ox in order to drag the plough through the furrow of mud which they themselves conjointly have helped to create. The very thing however—the spirit of adventure which makes this man go out on a dark cold night —this very thing of the chromosomes in him is the thing that makes him defy any attempt to dictate to him by "groups" who never knew what it was to do anything but hold committee meetings for pay while the real doctor was out delivering the baby.

The truth is that the public really wants a family doctor, for the general need of individualism in the art and practice of medicine have their roots deeply planted in the soil of American habit and tradition. In saying this we realize that the practitioner cannot sit idly, and let the stream of modern life pass him utterly by. He cannot fail to heed the insistent demand for his share in preventive medicine and periodic health examinations, with the general practitioner as its advocate, and its guide and sponsor. Here the problem is even yet one of education beginning in the school age. But it is the great future of American medicine, as soon as you can get the people to see it. But be that as it may the average layman still hesitates to seek medical aid until driven in by pain or discomfort. The physician likewise hates to seem to solicit practice. The whole question must be one of education, and it must be ceaseless and relentless. I am committed to fight for individualistic effort, and in this regard am not taking up the cudgels against any group of men allying themselves for medical service for the good of the public, but I am certainly against government, or *lay* group interference. We all know the history of Europe from Portugal to Austria, and back to England where they are now getting what was foisted upon them in 1911. The trouble in America is that we will vote for anything new that will "soak" somebody or some class, and then spend a generation yelping to have it repealed after the dire consequences are observed. In all these cases, it is in the last analysis the public which suffers most.

So then we have to consider collectivism and individualism. I am for individualism, provided we, the doctors, wipe off our glasses, and try to see clearly the problems of the future and work alertly with these problems, but we cannot do it by tying ourselves irrevocably to our practices of the past. Possibly some of our younger thinkers are willing to accept the dole—to become collective in their activities—it would be interesting and stimulating to hear from them, for they are the men of the immediate future and their voice must be heard and heeded.

Personally I am for the family doctor, and for specialism only in so far as it has its just place by properly trained specialists in any given community. We have to have specialists in any branch of modern activity—but that is the subject for another discussion.

But back finally to the family doctor. Did you ever hear of anyone who loved a hospital or an out-patient clinic. No! They may use them perforce—but they really do love their family physician because of his personal interest in them in a time when they are both sick and sensitive, and also because of the "personality he puts into his individual relationship and you cannot ever standardize personality! So long as our social order is based on the family unit and around the family life, so long will you find the fire burning before the homely shrine of the family doctor."

1701 David Whitney Building.

COMMUNICATION

AMERICAN HOSPITAL ASSOCIATION

February 15, 1933.

To Our Hospitals:

Widespread public interest exists in periodic payment plans for the purchase of hospital care (the system frequently spoken of as group hospitalization). Response to this interest has taken two forms: first, the development of plans whose chief motive is public service; second, attempts to promote schemes into which the business or profit motive enters to a degree which the Trustees and Council of the American Hospital Association believe to be detrimental to the best interests of the public.

So many requests for advice in regard to group hospitalization plans have been received by the Association that the Board of Trustees, after voting its approval of the principle of the periodic payment plan for the purchase of hospital care, requested the Council to formulate recommendations for the guidance of hospitals that wish to develop such plans. The conclusions of the Council are embodied in the accompanying bulletin. The Council will keep under close observation further developments in this sphere, and from time to time may issue supplementary recommendations.

The Council urges hospitals to proceed with caution in the development of periodic payment plans. Local committees which take this matter under advisement are urged to familiarize themselves with the principles set forth in the accompanying report, and interested hospitals are advised to make no commitments until they have considered the problem from the respective standpoints of public service, administrative practice, medical standards, and actuarial requirements.

The Council wishes especially to caution hospitals not to accept hastily the plans of promoters who approach this matter with profits chiefly in view and to enter into no contract which would deprive them of full control of promotional methods and other procedures and relationships which the plan involves.

The actual development of a plan appropriate to the requirements of a given community will necessitate the consideration of many details which it was thought best to omit from the present bulletin. In the formulation of a plan, those interested will naturally turn to similar agreements already in force in various communities. It would be wise to check such agreements against the Council's recommendations and, where any doubt arises about the relative merits of divergent procedures, to communicate with the Council, which to the extent of its ability is prepared to coöperate with hospitals in the precise formulation of workable programs.

Communications on this subject should be addressed to the Council of the American Hospital Association, 18 East Division Street, Chicago.

Respectfully,

Bert W. Caldwell,
Executive Secretary.

SOCIETY ACTIVITY

MONTHLY COMMENT

The stenographic record of the County Secretaries Conference is contained in this issue. Every member will find much of interest in the addresses and discussions.

Nations, business institutions and organizations have failed in sudden emergencies. The medical profession through all time has a record of faithful service regardless of what the emergency might be or its scope. Would we could say the same in reference to financiers and banks.

Public opinion ultimately decides social policies. Guidance is sought from recognized authority. Your county society should be the recognized local authority in all matters related to health and medical care. Cause your County Society to become recognized by imparting sound advice and exercising local influence.

Evidencing anew your officers' alertness for conserving members' interests was the representation made to the Governor to release commercial bank accounts to defray expenses of illness.

February 28, 1933.

Governor William A. Comstock,
Executive Offices,
Lansing, Michigan.

Your Excellency:

We, the Officers, Council and Secretaries of the component County Societies of the Michigan State Medical Society assembled in Annual Conference in Grand Rapids respectfully invite your earnest considerate attention to the following representations:

1. We heartily commend your prompt action in declaring a so-called "Bank Holiday" when suddenly confronted with an emergency that involved the solvency of Michigan Banks.
2. We feel that you provided an opportunity for stabilization and possible precipitous action that would have jeopardized many individuals and institutions' financial stability.
3. We feel that sufficient time has now elapsed to afford all individuals and business institutions opportunities to appraise their resources and that need no longer exists for restrictions upon commercial accounts.
4. We further feel that the arbitrary continuation of the holiday will militate severely against the best business and professional interests of all our citizens and community welfare.
5. We direct your special attention to the interests of physicians, dentists and hospitals. For three years this group has sincerely sought to provide adequate service to our people. Remuneration for services has fallen to a minimum and incomes have been reduced to a bare living minimum. A goodly number of doctors and dentists and nurses are now at a point where to secure funds sufficient to live upon is a most serious problem. Bank restrictions which limit depositors to a five per cent withdrawal, barely sufficient for their existence, leave them with no funds to provide for medical and nursing care. Depriving physicians, dentists and nurses of income will cripple them to a degree whereby they will be unable to defray office, automobile, telephone and medical supplies expenses. Adequate medical care will not be available and health interests and lives of our citizens will be imperiled.
6. Representing some 4,000 doctors of Michigan we do therefore urgently petition and respectfully request that you record the necessary executive action that will release all commercial accounts in Michigan banks, believing that such action is as imperative for our State's welfare as was your original proclamation.

Respectfully submitted,

J. M. Robb, President
G. L. Le Fevre, President-Elect
B. R. Corbus, Chairman of the Council
F. C. Warnshuis, Secretary

HONORING JOHN L. BURKART, M.D., EIGHTY YEARS YOUNG

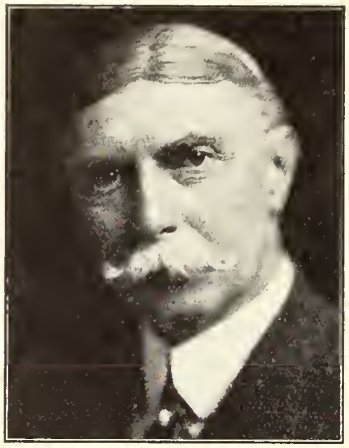
Dr. John L. Burkart, secretary and senior member of the Mecosta County Medical Society, was the victim of a surprise testimonial dinner staged at the Western Hotel, Big Rapids, March 15, 1933, in celebration of his 80th birthday. The event was staged by the members of the County Society. Joining with us in this memorable event were Drs. Geo. L. LeFevre, President-elect of the State Society, and Fred C. Warnshuis, Secretary of the State Society.

Dr. LeFevre spoke at length on his acquaintance with Dr. Burkart, extending over a period of more than thirty years, and was followed by Dr. Warnshuis who told of his long acquaintance with his old friend and former teacher.

Dr. Glenn Grieve, Big Rapids, on behalf of the County Society, presented Dr. Burkart with a beautiful dressing robe and a framed photograph of President Franklin D. Roosevelt.

Dr. Burkart has been an outstanding figure in Michigan Medicine for more than fifty years and has lived through nearly a century of medical progress. He served as a contract surgeon in the Philippines during the Spanish-American War. Under the administration of Governor Ferris, he served the State of Michigan as Commissioner of the Michigan Health Department. He is a

past-president of the Mecosta County Medical Society, and for the past several years has served as secretary of that society. He is at present Health Officer of the City of



DR. JOHN L. BURKART

Big Rapids. He was formerly Grand Rapids City Physician and for many years was professor of Pharmacology and Therapeutics in the Grand Rapids Medical College. Dr. Burkart is a graduate pharmacist as well as physician.

It is the wish of all his many friends, both without the profession and within, that he may remain with us for many more happy years, for at his remarkable age he is without a doubt the most active and most enthusiastic member of the Mecosta County Medical Society.

T. P. T.

SUSTAINED POST-GRADUATE STUDY

We hold that our Society was the pioneer in initiating, encouraging and providing state-wide opportunities for post-graduate study. Our Society recognized the need for opportunities within the state for our members to increase their knowledge of scientific medicine, medical progress and their skill in medical practice. Our Society recognized the fact that when a doctor ceases to learn, when he fails to remain abreast of scientific progress, when he neglects to improve his skill he is no longer competent and is unfit to serve the public efficiently.

Perceiving these principles, our Society assumed the direction and work of providing post-graduate study opportunities.

First "clinic teams" and clinical teachers were sent to district and county society meetings that were arranged under a state-wide schedule. These were followed by one and two day Councilor District programs. Two and three such conferences were conducted in each district each year and are still being conducted.

As the members' interest and demand increased, the Department of Post Graduate Medicine of the University joined in the work. In Detroit and Ann Arbor the University Department of Post Graduate Medicine, coöperating with our Society, arranged first for ten-day intensive courses. This was followed with four-week intensive courses open to our members. University officials also arranged with the faculty of the Detroit College of Medicine and Surgery and the Detroit Receiving Hospital staff for clinical facilities and material. Opportunity to pursue special courses in Ann Arbor throughout the entire year was provided by the Director of Graduate Medicine.

Today every member has readily available the following opportunities to remain abreast of scientific progress and enhance his skill:

1. County Medical Society
2. Councilor District Conferences
3. Intensive Courses in Ann Arbor and Detroit
4. Planned Courses in Ann Arbor of varying duration
5. Special Courses in Ann Arbor.

Last month the JOURNAL published a list of courses that are being conducted this spring and early summer. Information pertaining to them may be had by writing or calling on the Director of the Department of Post-Graduate Medicine, University Hospital, Ann Arbor.

That our Society and the University exhibited wisdom in developing these opportunities is emphasized by the recent Supreme Court decision in Connecticut.

The Connecticut court in its opinion declared that it is not unreasonable to require that the physician have and exercise the skill of physicians and surgeons in similar localities in the same general neighborhood, and

that, *under modern conditions there is perhaps less reason than formerly for the restriction of the skill required to that possessed by physicians and surgeons in the same locality, since there is no lack of opportunity for the physician or surgeon in smaller communities to keep abreast of the advances made in his profession and to be familiar with the latest methods and practices adopted."*

This opinion, which will most likely be sustained by other courts, makes it imperative for members to embrace these postgraduate opportunities.

INTERESTING DECISION BY JUDICIAL COUNCIL, A.M.A. SETS A PRECEDENT IN REGARD TO TYPES OF CONTRACT PRACTICE*

Numerous new ventures in changing the nature and methods of medical practice have been launched during the past two or three years but probably none of these revolutionary experiments has gained such momentum and been accorded such widespread publicity as those commonly known as contract practice schemes for marketing medical service to limited groups of individuals or the public at large.

Contract practice is not a new development in medical care. It has been carried on for years in different sections of the country. In many instances, especially under certain conditions and in certain communities, contract practice set-ups have been deemed ethical.

However, with the onset of the present economic depression, numerous and varied new forms of contract practice were established. In these new experiments medical ethics and the fundamental principles underlying good medical practice and competent medical care are accorded little, if any, consideration. For the most part, they are commercial rackets which exploit the services of the physician under contract; advance the financial interests of those promoting the venture; preclude the free choice of physician; operate in unfair competition with other physicians of the community; sacrifice quality of medical service for commercial expediency; encourage bargaining, solicitation of patients and underbidding; create dissensions within the ranks of the medical profession, and stimulate other activities which disrupt the relationship between physician and patient and break down the practice of medicine on an ethical, altruistic and professional basis.

All physicians who have kept themselves informed concerning recent trends and developments in the field of medicine are familiar with the mode of operation of many of those new types of medical practices and with their inherent dangers, both from the standpoint of the public and the medical profession.

In all probability, the question in the minds of the majority of members of the profession concerning this development, now threatening to injure the individual independent practice of medicine, is:

"What are we going to do about it?"

A partial answer to this question has been furnished by the Dallas County (Texas) Medical Society, whose fearless action against a contract practice scheme operating in the City of Dallas has blazed the way for similar action by other county medical societies and has the official and final judgment of the Judicial Council of the American Medical Association to back it up.

Early in 1932, the Dallas County Medical Society, by official act, suspended eighteen of its members who were practicing medicine as a group, because of their refusal to abandon certain contracts which the society believed were inimical to the welfare of their confreres and subversive of sound public policy.

The case was appealed through the councilor of the district to the Council of the Texas State Medical Association. This body, acting as a court of appeals, sustained the Dallas County Medical Society and directed that the suspension of the appellants should be relieved immediately that they abandon the contracts complained of.

From this decision appeal was taken to the Judicial Council of the American Medical Association, which, as stated before, recently sustained the suspension.

Prosecution of the case was based primarily upon Section 2, Article 6, of the Principles of Medical Ethics of the American

*From *Ohio State Medical Journal.*

Medical Association, which reads as follows:

"It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession."

In addition, the Council of the Texas State Medical Association in rendering its decision sustaining the action of the Dallas County Medical Society, relied upon the following interpretative analyses of unethical contract practice made by the Judicial Council of the A. M. A.:

"1. When the compensation received is inadequate, based on the usual fees paid for the same kind of service by the doctors in the same community.

"2. When the compensation is so low as to make it impossible for competent service to be rendered.

"3. When there is competitive bidding in order to secure the contract.

"4. When a free choice of physicians is denied.

"5. Solicitation of patients, directly or indirectly."

The contract complained of, and upon which the procedure was based and the eighteen members suspended, read in part as follows:

CONTRACT NO. 1

"For the consideration herein stated, the clinic agrees to render all necessary surgical and medical treatment for members of the Association, such members to be composed of white employees, male and female, of the Dallas Railway Company and Texas Interurban Railway, through physicians connected with the Dallas Medical and Surgical Clinic, the Clinic agreeing to appoint a competent person, graduate in medicine and surgery, as Chief Physician, and the Clinic agreeing to furnish consultation service and active assistance when necessary so as to fully coöperate in the performance of the services herein contemplated.

"An office shall be furnished and equipped by the Association, at a place selected by it, whereon each day, except Sundays and holidays, at any hour to be designated by the Association, the Chief Physician of the Clinic as hereinabove provided, shall hold a clinic or sick call period for ambulatory cases among the Association members.

"The Association shall likewise employ, at its own expense, a nurse mutually satisfactory to the Association and the Clinic.

"The physicians and surgeons of the Clinic will render attention either at the clinical office hereinabove referred to, or at the homes of the members.

"The services agreed to be performed by the Clinic, through its physicians and surgeons, shall include medical and surgical attention of every character, including also eye, ear, nose and throat and oral surgery, but shall not include ordinary filling and dental work or venereal diseases.

"X-ray service and special treatments shall be furnished by the Clinic to the Association members at actual cost to the Clinic, which cost shall be paid to the Clinic by the individual members of the Association, and it is not agreed to be paid by the Association itself.

"As a consideration of the services above rendered, the Association agrees to pay the Clinic seventy-five (75c) per member per month, the collection of such fees to be made by the Association, and remittance of such amount, together with an accounting and statement thereof, shall be made to the Clinic not later than the tenth of each month, such remittance and accounting to cover fees for the preceding calendar month.

"The contract and agreement shall take effect from and after the first day of August, 1924, and continue for the period of one year from such date, and thereafter indefinitely, unless terminated by either of the parties, such termination to be written notice served upon the other party thirty (30) days before the time of termination."

CONTRACT NO. 2

"Upon the payment of $200.00 per month, the services of your staff are available to the officers and employees of this bank for consultation, examination, and treatment of minor cases of illness, in our building when necessary. However, employees are not required to accept this service, but are free to employ the services of their family physician at their expense if they so desire.

"Any treatments given our employees at the clinic and all home visits are made at the request of the employee, without any knowledge or liability on the part of this bank, and we presume the charges made in such instance are in accordance with the economic standing of such employee."

The decision of the Judicial Council of the American Medical Association in confirming the suspension of the Dallas physicians was in part as follows:

"The fundamental issue in dispute in this case is the ethical character of certain contracts held by the appellants to give medical service to groups of people on a monthly per capita plan of payment. No essential facts of the contracts were in dispute.

"It is contended by the appellants that these contracts were not in violation of all or any of five conditions which the Judicial Council has declared at various times are conditions, which obtaining, made a contract unethical. The Dallas County Medical Society which sentenced these appellants to suspension contended that these contracts violated all five of these conditions. When, in its constitutional function as authority over ethical matters, the Judicial Council expounds the subject of contract practice and lays down certain principles which, when present, create an unethical contract it is not to be assumed that those are the only principles which may have that effect. A fundamental of medical ethics is that anything which in effect is opposed to the ultimate good of the people at large is against sound public policy and therefore unethical. On the five points mentioned the appellants presented a strong argument which might be convincing if a narrow or local view only is considered. Nevertheless the Judicial Council is of the unanimous opinion that this type of contract is unethical on the basis of being contrary to sound public policy.

"The appellants were at the same time convicted of violation of a by-law of the society forbidding the holding of certain contracts and pleaded error in the trial on a technical procedure. This phase of the appeal was not pressed by either side, but from such records as were submitted to the Council, it is

of the opinion that no reversible error was proven.

"The action of the Board of Councilors of the State Medical Association of Texas is confirmed."

Although only touching the high spots of the Dallas case, the facts summarized in the foregoing paragraphs may set a precedent for solution of similar problems confronting other county medical societies.

Obviously, local situations and circumstances will vary greatly. Each will have to be considered as an individual, isolated problem. However, the broad, general and fundamental principles upon which action can be based will apply in many cases.

Commenting on the case and the decision of the Judicial Council, Dr. Holman Taylor, editor of the *Texas State Journal of Medicine*, made the following observations:

"No matter how the problem is approached, solution must begin in the society, and chances are that for the most part it will remain there. Only in the instance new issues are raised in similar cases will there likely be appeal, the case here discussed serving adequately as a precedent in the character of contracts considered.

"It is difficult to see how any group could lay down hard and fast rules for the control of contract practice under the varying conditions confronting practitioners throughout this country. It is easily possible, and it should be done, and soon, to expand the five points advanced by the Judicial Council and above quoted, into more specific provisions, although still of a general nature, supported by case reports, as it were, both actual and hypothetical. In the meantime, it is up to the county medical society to deal with the situation.

"It would seem quite evident that the trend of practice under even the modest form of contracts complained of in this case, towards the development of groups of a large variety, based upon many and different factors but all for the purpose of securing medical service at a reduced rate, and it is in the ultimate result of this development, under the very complex organization of society at this time and in the face of the tendency toward the socialization of not only medicine, but other vocations, that is to be feared, not only, as we have already said, by the medical profession but by the public as well."

POST-GRADUATE COURSES

Auspices of
The Department of Post-Graduate Medicine
—University of Michigan
and the
Michigan State Medical Society

The following opportunities for post-graduate work, within our state and at extremely reasonable expense are imparted to our members. Embracing these opportunities will be most profitable. You owe it to yourself, your community and to your patients. Read these announcements carefully. Perceive the timeliness of each subject and the clinical ability of each instructor. Note the opportunity for additional work so that you will be able to utilize practically every hour.

Having done so, elect the course or courses you desire to take and write today to the Department of Post-Graduate Medicine, University Hospital, Ann Arbor, Mich., for enrollment or additional information. Elsewhere in this department you will find an article imparting added reasons as to why every doctor should plan to do some post-graduate work each year.

Course 1

OPHTHALMOLOGY and OTOLARYNGOLOGY

The course is arranged by the Departments of Ophthalmology and Otolaryngology of the University Medical School. It is designed to review the fundamental principles of these subjects through lectures, demonstrations and operative procedures by men of national prominence. Opportunity will be given to observe the application of the more modern developments in these specialties.

Night classes will be held in the anatomical laboratories for the review of dissection and operative procedures.

This program is offered to those especially interested in these fields as a means of further study and is not intended to prepare practitioners for specialization.

The first three days of the course will be devoted to Otolaryngology and the second to Ophthalmology. The fee is $25.00, or $15.00 for either division. Enrollment is limited and registration will be in order of application. Check should be sent with application. This will be returned if applicant finds it impossible to attend.

OTOLARYNGOLOGY

Monday, April 24th

MORNING

8:00- 9:00	Registration. Room 2040.
9:00-10:30	Clinical pathological conference. Dr. C. V. Weller, Dr. A. C. Furstenberg and Staff
10:30-12:00	Diseases of the temporal bone. Dr. Harold I. Lillie, Rochester, Minn.

AFTERNOON

2:00- 3:00	Clinical presentation. Dr. Harold I. Lillie
3:00- 4:00	Clinical and pathological aspects of malignancy of the nose and sinuses. Dr. Norton Canfield
4:00- 5:00	X-ray and radium treatment. Dr. Harold Jacox

EVENING

7:00	Anatomical studies. Anatomy Laboratory, New Medical Building

Tuesday, April 25th

MORNING

9:00-10:30	Complications of acute suppurative otitis media. Dr. A. C. Furstenberg
10:30-12:00	Meningitis in special relation to various kinds of suppuration of the bone. Dr. Wells P. Eagleton, Newark, N. J.

AFTERNOON

2:00- 3:00 Clinical presentation.
Dr. Wells P. Eagleton
3:00- 4.00 Head pain. Dr. Max M. Peet
4:00- 5:00 Interpretation of X-rays of sinus and temporal bone.
Dr. Fred J. Hodges

EVENING

7:00 Anatomical studies.
Anatomy Laboratory
New Medical Building

Wednesday, April 26th

MORNING

9:00-10:30 Mucous membrane lesions.
Dr. Udo J. Wile
10:30-12:00 Nasal accessory sinus disease.
Dr. Ferris N. Smith
Grand Rapids, Mich.

AFTERNOON

2:00- 3:00 Clinical presentation.
Dr. Ferris N. Smith
3:00- 4:00 Localization of otitic brain abscess. Discussion of aphasia.
Dr. Carl Camp

EVENING

7:00 Anatomical studies.
Anatomy Laboratory
New Medical Building

OPHTHALMOLOGY

Thursday, April 27th

MORNING

9:00-10:30 Operations Dr. George Slocum
Dr. F. B. Fralick
10:45-12:00 The retinal blood-vessels and the fundus in arterial sclerosis, hypertensive disease and nephritis.
Dr. William H. Stokes
Omaha, Nebraska

AFTERNOON

1:30- 2:30 The retinal blood-vessels and the fundus in arterial sclerosis, hypertensive disease and nephritis.
Dr. William H. Stokes
2:30- 3:00 Management of glaucoma.
Dr. F. B. Fralick
3:00- 4:00 Demonstration of cases and slides.
Dr. F. B. Fralick
Dr. R. C. Warner
4:00- 5:00 The etiologic relations of nephritis, diabetes, arterial sclerosis, pernicious anemia and leukemia to affections of the eye, and their diagnostic value in general disease.
Dr. Charles Brown

Friday, April 28th

MORNING

9:00-10:30 The selection of operation for squint, including a broad survey of the subject. Dr. Charles P. Jameson
10:30-12:00 Operations. Eye muscles.
Dr. Charles P. Jameson
Brooklyn, N. Y.

AFTERNOON

1:30- 2:30 The selection of operation for squint, including a broad survey of the subject.
Dr. Charles P. Jameson
2:30- 4:00 Demonstration of cases, pathological specimens, and slides.
Dr. F. B. Fralick
Dr. R. C. Warner
4:00- 5:00 Non-specific protein therapy.
Dr. D. M. Cowie

Saturday, April 29th

MORNING

9:00-10:30 Operations and demonstrations.
Dr. George Slocum
Dr. F. B. Fralick
10:45-12:00 Exophthalmos and toxic goiter and the relation of exophthalmos to metabolism and goiter.
Dr. Albert D. Ruedemann
Cleveland, Ohio

AFTERNOON

1:30- 2:30 Exophthalmos and toxic goiter and the relation of exophthalmos to metabolism and goiter.
Dr. Albert D. Ruedemann
2:30- 4:00 Demonstration of cases, slides and pathological specimens.
Dr. F. B. Fralick
Dr. R. C. Warner
Dr. Don Marshall
4:00- 5:00 Focal infections arising from diseases of the teeth and the relation between the first and second teeth and eye conditions.
Dr. Chalmers J. Lyons

Course 2.

DISEASES OF THE HEART AND CIRCULATORY SYSTEM

University Hospital, Ann Arbor
April 3-7, 1933

The course outlined in this announcement is a part of the program of post-graduate teaching inaugurated by the Department of Post-Graduate Medicine of the University of Michigan and the Michigan State Medical Society.

In order that the lectures and clinics may be as informal as possible and because ward rounds and opportunities for physical examinations of patients will be given, enrollment will be limited.

The fee for the course is $15.00, payable on application. If unable to attend, fee will be returned.

Registration will be in order of application.

Monday, April 3rd

MORNING

9:00-10:00 Registration. Room 2040.
10:00-12:00 Ward Rounds. Dr. Frank N. Wilson

AFTERNOON

1:30- 3:30 Disturbances of the cardiac mechanism and electrocardiogram.
Dr. Frank N. Wilson
3:30- 4:30 Indications for digitalis and quinidin.
Dr. Paul S. Barker

Tuesday, April 4th

MORNING

9:00-10:00 Rheumatic heart disease.
Dr. Frank N. Wilson
10:00-12:00 Ward rounds. Heart conditions in children.
Dr. D. Murray Cowie

AFTERNOON

1:30- 2:30 Diets in use in cardiac failure, hypertension and obesity.
Mrs. Dorothy S. Waller
2:30- 4:30 Use of fluoroscope in study of the heart. Dr. Fred J. Hodges

---

Wednesday, April 5th

MORNING

9:00-10:00 Symptoms and signs of heart failure. Principles of treatment.
Dr. Frank N. Wilson
10:00-11:00 Ward rounds. Dr. Frank N. Wilson

AFTERNOON

1:30- 2:30 Arteriosclerotic heart disease.
Dr. Robert L. Novy
Detroit
2:30- 3:30 Cardiac pain and coronary thrombosis. Dr. Hugo A. Freund
Detroit
3:30- 4:30 X-ray conference.

Thursday, April 6th

MORNING

9:00-10:00 Cardiovascular syphilis.
Dr. Frank N. Wilson

10:00-12:00 Ward Rounds. Dr. D. Murray Cowie

AFTERNOON

1:30- 2:30 Congenital heart disease.
Dr. Frank N. Wilson

2:30- 3:30 Graphic records of heart sounds and heart murmurs.
Dr. Franklin D. Johnston

3:30- 4:30 Circulatory problems in relation to Obstetrics and Surgery.
Dr. E. D. Spalding
Detroit

Friday, April 7th

MORNING

9:00-10:00 Bacterial endocarditis.
Dr. Frank N. Wilson

10:00-12:00 Ward Rounds. Dr. Frank N. Wilson

AFTERNOON

1:30- 2:30 Goiter heart. Dr. Norman E. Clarke
Detroit

2:30- 4:30 Clinical pathological conference in cardiac pathology.
Dr. Carl V. Weller
Dr. Frank N. Wilson

Course 3

PROCTOLOGY

The frequency and importance of ano-rectal and colonic disease as causes of local disabling conditions and systemic manifestations, together with many requests for greater recognition of this subject on the general program of post-graduate teaching, have led us to set aside a fortnight for a more extensive presentation. While emergency and office treatment, requiring a minimum of experience and equipment, will be emphasized, conditions which require more highly specialized methods both in diagnosis and treatment will be demonstrated.

Instructors

First week: Dr. Edward G. Martin and Associates

Second week: Dr. Louis J. Hirschman and Associates

RECEIVING HOSPITAL—DETROIT, MICHIGAN

FIRST WEEK — Dr. Edward G. Martin and Associates

A.M.	Monday May 15	Tuesday May 16th	Wednesday May 17	Thursday May 18th	Friday May 19	Saturday May 20th
8:00	Anatomy and physiology of anus, rectum and colon.	Exhibitions of special instruments used in anorectal practice. Pre-operative and post-operative care. Various types of anesthesia in anorectal surgery.	Anal fissure and ulcer. Surgical and non-surgical treatment.	Pruritus ani.	Venereal diseases of anus and rectum.	Review of work of week with Operative Clinic
9:00			Stricture of anus and rectum.	Prolapse of rectum.	Anomalies, deformities and malignancies of the anus, rectum and colon.	
10:00	General consideration of proctologic diseases.	Operative Clinic	Operative Clinic	Operative Clinic	Operative Clinic	
11:00	Symptoms suggesting the necessity for examination of anus, rectum and colon, with technic of of examination.					

Dr. Louis J. Hirschman and Associates

SECOND WEEK

A.M.	Monday May 22nd	Tuesday May 23rd	Wednesday May 24th	Thursday May 25th	Friday May 26th	Saturday May 27th
8:00	Focal infection from proctologic standpoint.	Etiology and treatment of abscess of anus, and rectum, anal and rectal fistula and pilonidal cyst.	Constipation, obstipation and fecal impaction.	Office methods of treatment	Malignant diseases of anus and rectum. Colostomy, cecostomy, colonic polyposis, colitis and colonic dysfunction.	Review of work of week with Operative Clinic
9:00	Cryptitis, papillitis, polyposis.		Uses of Roentgenology in Proctology	Hemorrhoids, internal and external.		
10:00	Operative Clinic.	Operative Clinic	Operative Clinic.	Operative Clinic.	Operative Clinic.	
11:00						

The hours of instruction are from 8:00 A. M. to 12:00 M. daily. The fee for the course is $25.00 and should accompany application. This will be returned should applicant be unable to attend.

Enrollment is limited and registration will be in order of application.

Course 4

PRACTITIONERS' COURSE

JUNE 19-JULY 1, 1933

DETROIT, MICHIGAN

The fifth annual Practitioners' Course will be given at the Receiving and Herman Kiefer Hospitals, Detroit, Michigan, June 19 to July 1, 1933, inclusive.

The current need for medical service by the majority of people is very great. Large numbers of remedial defects are being neglected in this period of economic stress. Preparedness by the profession for any increase in disabling conditions is highly desirable, and in this time of unproductive effort the physician can best afford to take advantage of opportunities for post-graduate study.

The course has been arranged to meet the needs of the practitioner by means of intensive studies in heart disease, coronary sclerosis, the ambulatory treatment of diabetes, office procedure in gynecology and proctology, the infectious diseases, tuberculosis, pyelitis, chronic abdominal conditions, the common psychoses, and focal infections. Each subject or special field, as far as possible, will be presented as a symposium by the internist, surgeon and pathologist.

The hours of instruction are from 8:30 A.M. to 12:30 P.M. Afternoons and evenings may be devoted to informal discussions, observation on the wards, dissection in the anatomical laboratory, or library work. This course will follow that in Proctology and be given concurrently with that of Gynecology, Obstetrics and Gynecological Pathology.

Enrollment is limited and registration will be in order of application. Fee $15.00.

FIRST WEEK

Monday, June 19th

RECEIVING HOSPITAL

8:30-12:30 Essentials and technic of history taking. Its importance in diagnosis. Demonstration of cases. Routine? physical examination with emphasis upon relative importance of physical signs. DR. HUGO A. FREUND, DR. E. D. SPALDING

Tuesday, June 20th

RECEIVING HOSPITAL

8:30- 9:30 Clinic. Acute rheumatic fever. Etiology, signs, symptoms, treatment. DR. C. G. JENNINGS

9:30-10:30 Clinic. Rheumatic heart disease. Diagnosis and discussion of physical signs. DR. DOUGLAS DONALD

10:30-11:30 Clinic. Angina pectoris and coronary thrombosis. DR. NORMAN E. CLARK

11:30-12:30 Clinic. Comparison of treatment of rheumatic heart disease with that of arteriosclerotic, hypertensive and syphilitic heart disease. DR. ROBERT L. NOVY

Wednesday, June 21st

RECEIVING HOSPITAL

8:30- 9:30 Clinic. Symposium on relation of focal infection to systemic disease. (Sinus, middle ear, tonsil, mastoid). Medical and surgical management. DR. J. MILTON ROBB

9:30-10:30 Clinic. Focal infection in teeth and gums. DR. DON BELLINGER

10:30-11:30 Gall stone and bladder disease. Diagnosis and management. DR. HAROLD K. SHAWAN

11:30-12:30 Anus and rectum. Medical and surgical management. DR. LOUIS J. HIRSCHMAN

Thursday, June 22nd

RECEIVING HOSPITAL

8:30- 9:30 Classification of nephritis.

9:30-10:30 Exhibition of cases. Treatment of acute and chronic stages. DR. ALPHEUS F. JENNINGS

10:30-11:30 Clinic. Differential diagnosis of coccus kidney, pyelitis and appendicitis. DR. WM. E. KEANE

11:30-12:30 Enlarged prostate, local and systemic manifestations. Modern management. DR. HARRY W. PLAGGEMEYER

Friday, June 23rd

HERMAN KIEFER HOSPITAL

8:30-12:30 Clinic. Infectious diseases. Presentation of different types. Emphasizing preventive measures, passive and active immunity and treatment. DR. JOHN E. GORDON AND STAFF

Saturday, June 24th

HERMAN KIEFER HOSPITAL

8:30- 9:30 Early diagnosis of tuberculosis. National Sanatorium Board criteria.

9:30-10:30 Treatment of early tuberculosis.

10:30-11:30 Treatment of moderately advanced and far-advanced tuberculosis (pneumothorax, phrenicotomy, thoracoplasty).

11:30-12:30 Treatment of common complications of tuberculosis (hemorrhage, laryngitis, gastro-intestinal, renal and peritoneal types). DR. HENRY D. CHADWICK AND STAFF

SECOND WEEK

Monday, June 26th

RECEIVING HOSPITAL

8:30- 9:30 Differential diagnosis of peptic ulcer and gall bladder disease. DR. BRUCE C. LOCKWOOD

9:30-10:30 Common rectal lesions. Treatment. DR. LOUIS J. HIRSCHMAN

10:30-11:30 Functional gastro-intestinal diseases. DR. FREDK. G. BUESSER

11:30-12:30 Cancer of digestive tract. DR. MAX BALLIN, DR. PLINN F. MORSE

Tuesday, June 27

RECEIVING HOSPITAL

8:30- 9:30 Differential diagnosis of glycosuria. DR. DANIEL P. FOSTER

9:30-10:30 Treatment of diabetes mellitus in non-insulin cases. Diabetic regimen. DR. DANIEL P. FOSTER

10:30-11:30 Use of insulin in treatment. DR. RICHARD M. MCKEAN

11:30-12:30 Prevention and treatment of complications.

Wednesday, June 28th

RECEIVING HOSPITAL

Gynecology. Symposium on practical office procedures and demonstration of common lesions.

8:30- 9:30 Carcinoma of cervix uteri. Predisposing factors. Office methods of making biopsy. Pathology of lesion. Treatment.

9:30-10:30 Leukorrhea. Types. Demonstration of slide suspension for Trichomonas. Gram stain. Use of tampons, douches and cautery.
Dr. Ward F. Seeley

10:30-11:30 Sterility. Endocrine factors. Examination to establish etiology.

11:30-12:30 Bleeding. Indications for dilatation and curettage. Treatment of anemia. Endocrine factors.
Dr. H. Wellington Yates

Thursday, June 29th

RECEIVING HOSPITAL

8:30- 9:30 Discussion of the neuroses and the psychoses, with demonstration of cases. Dr. David R. Clark

9:30-10:30 Psychoneurosis. Hysteria, Etiology, diagnosis and treatment.
Dr. David R. Clark

10:30-11:30 Anxiety neurosis. Manifestations, etiology, diagnosis and treatment.
Dr. Heinrich A. Reye

11:30-12:30 Traumatic neurosis. Common causes, diagnosis and management.
Dr. Heinrich A. Reye

Friday, June 30th

RECEIVING HOSPITAL

8:30- 9:30 Chronic arthritis. Classification with demonstration of cases.
Dr. Frank J. Sladen

9:30-10:30 Common foot conditions. Hallux valgus and bunion treatment. Demonstration of Mayo type operation. Ingrown toe nails. Prolapse metatarsal arch. Foot strain. Flat feet. Gonococcus arthritis of foot.
Dr. Alfred D. La Ferte

10:30-11:30 The spine. Backache. Postural defects. Sciatica. Lumbago. Diagnosis and treatment. Value of X-rays. Demonstration of cases.
Dr. Fredk. C. Kidner

11:30-12:30 Minor injuries. Sprains about ankle, knee. Torn ligaments, cartilages. Injuries to hand. Severed tendons. Demonstration of cases, with treatment.
Dr. Chas. Wm. Peabody

Saturday, July 1st

RECEIVING HOSPITAL

8:30-10:30 Clinic. Common skin diseases. Diagnosis and treatment.
Dr. Harther L. Keim

10:30-12:30 Treatment of syphilis during primary stage.
Treatment of syphilis during secondary stage.
Treatment of syphilis during latent stage.
Treatment of cardio-vascular syphilis.
Dr. Robert C. Jamieson

Course 5

GYNECOLOGY, OBSTETRICS AND GYNECOLOGICAL PATHOLOGY

June 19-July 1, 1933

DETROIT, MICHIGAN

A recent survey of the gynecological services of several large hospitals shows that the operative repair of birth injuries has decreased between 30 and 75 per cent. If trauma is responsible in as great degree as we have believed for the development of cancer and other pelvic anomalies, it would seem that a rise in incidence of cancer and other disabling conditions is imminent. The following advanced course offers a thorough review of the basic principles of modern obstetrics, those involved in caring for injuries common to childbearing, and the pathological changes incident thereto. The abundant clinical and pathological material of the Receiving, Herman Kiefer and Providence Hospitals will be utilized.

Enrollment is limited and registration will be in order of application. Fee $20.00.

FIRST WEEK

Monday, June 19th

RECEIVING HOSPITAL

8:30- 9:30 Perineal repairs. Dr. Ward F. Seeley

9:30-11:00 Cystocele, rectocele, prolapse.
Dr. H. Wellington Yates

11:00-12:30 Pathologic lesions of external genitalia. Dr. James E. Davis

Tuesday, June 20th

RECEIVING HOSPITAL

8:30-10:00 Malpositions of uterus.
Dr. Ward F. Seeley

10:00-11:00 Neglected tumors of the myometrium.
Dr. H. Wellington Yates

11:00-12:30 Non-malignant and malignant tumors of uterus.
Dr. James E. Davis

Wednesday, June 21st

HERMAN KIEFER HOSPITAL

8:30-10:00 Toxemias of pregnancy.
Dr. Harold Henderson

10:00-11:00 Obstetrical hemorrhage and shock in pregnancy.
Dr. Ward F. Seeley

11:00-12:30 Pathology of eclampsia.
Dr. James E. Davis

Thursday, June 22nd

RECEIVING HOSPITAL

8:30- 9:30 Ante-natal obstetrical care and diagnosis of pregnancy.
Dr. Harold Henderson

9:30-11:00 Cesarean section.
Dr. Ward F. Seeley

11:00-12:30 Placental and fetal pathology.
Dr. James E. Davis

Friday, June 23rd

RECEIVING HOSPITAL

8:30-10:00 Infections of uterus and adnexa.
Dr. Ward F. Seeley

10:00-11:00 Tubal and abdominal pregnancies.
Dr. H. Wellington Yates

11:00-12:30 Clinical pathological conference.
Dr. James E. Davis and Staff

Saturday, June 24th

PROVIDENCE HOSPITAL

8:30-10:00 Uterine myomata and fibromata.
Dr. H. Wellington Yates

10:00-11:00 Differentiation of tumors and pregnancy.
Dr. Harold Henderson

11:00-12:30 Benign and malignant genital tumors.
Dr. James E. Davis

SECOND WEEK

Monday, June 26th

RECEIVING HOSPITAL

8:30-10:00 Disorders of menstruation.
DR. WARD F. SEELEY

10:00-11:00 Massive hemorrhage.
DR. H. WELLINGTON YATES

11:00-12:30 Tissue changes in hemorrhage.
DR. JAMES E. DAVIS

Tuesday, June 27th

RECEIVING HOSPITAL

8:30-10:00 Infertility.
DR. WARD F. SEELEY

10:00-11:00 Abortions.
DR. H. WELLINGTON YATES

11:00-12:30 Sequences of abortions and miscarriages.
DR. JAMES E. DAVIS

Wednesday, June 28th

HERMAN KIEFER HOSPITAL

8:30-10:00 Puerperal infections.
DR. HAROLD HENDERSON

10:00-11:00 Forceps deliveries.
DR. WARD F. SEELEY

11:00-12:30 Diagnosis of curettings.
DR. JAMES E. DAVIS

Thursday, June 29th

RECEIVING HOSPITAL

8:30-10:00 Salpingitis, ovaritis, pelvic peritonitis.
DR. WARD F. SEELEY

10:00-11:00 Endometritis, myometritis, servicitis.
DR. H. WELLINGTON YATES

11:00-12:30 Pathological diagnosis of genital inflammatory lesions.
DR. JAMES E. DAVIS

Friday, June 30th

RECEIVING HOSPITAL

8:30- 9:30 Cul-de-sac and other drainage procedures.
DR. WARD F. SEELEY

9:30-11:00 Malignancy of uterus (treatment).
DR. H. WELLINGTON YATES

11:00-12:00 Clinical pathological conference.
DR. JAMES E. DAVIS AND STAFF

Saturday, July 1st

RECEIVING HOSPITAL

8:30- 9:30 Placenta previa, placenta ablatio.
DR. HAROLD HENDERSON

9:30-11:00 Mammary gland surgery.
DR. H. WELLINGTON YATES

11:00-12:30 Tumors and inflammatory lesions of mammary gland.
DR. JAMES E. DAVIS

Continuation work for two (2) weeks in the following subjects may be arranged with Dr. James E. Davis:

1. Gross examination of genital tissues.
2. Methods of assembling clinical, gross and microscopic data concerning pelvic diseases.
3. Fundamental principles for application of laboratory data in practical work.
4. Development of material for records, writing papers and ready references to needed literature.
5. Directed examination and study of fresh and preserved tissues of desired organs or parts.

COUNCILOR FREDERICK A. BAKER

President Robb has appointed Dr. Frederick A. Baker, of Pontiac, Councilor to serve the unexpired term of Dr. C. A. Neafie. The appointment has been confirmed.

Dr. Baker's addition to the Council will be most welcome. He has ever manifested an earnest interest in medical activities. He is a student of organization, deeply interested in economics and medical progress. He has contributed much of his time and thought to all medical interests and has exemplified sound, dependable leadership.

DR. FREDERICK A. BAKER

Frederick A. Baker was born in Wisconsin in 1887. He received his elementary schooling at Manistique, Michigan, which was supplemented by two years at Kalamazoo College. He graduated from the Detroit College of Medicine and Surgery with the class of 1914, and was in general practice in the Upper Peninsula of Michigan five years. He received post graduate education in Eye, Ear, Nose and Throat in New Orleans, La., and in Vienna. He has practiced his specialty, Eye, Ear, Nose and Throat, in Pontiac since 1920. He served as president of the Oakland County Medical Society in 1928 and 1929. He is Consulting Ophthalmologist to Pontiac State Hospital, a member of the Detroit Otolaryngological Society, American Medical Association, Staff of the General and St. Joseph Mercy Hospitals and of the Committee on Survey of Medical and State Health Services.

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council met at 12:00 o'clock at the Pantlind Hotel, Grand Rapids, on February 28, 1933, preceding the Annual Conference of County Secretaries.

Present: Chairman B. R. Corbus, C. E. Boys, Henry Carstens, President J. Milton Robb, President-Elect George L. Le Fevre, and Secretary F. C. Warnshuis.

1. The Secretary advised the committee of the removal of Dr. C. A. Neafie from the state to accept a position with the Department of Health of Maine, thereby creating a vacancy in the Council. In compliance with the Constitution, President Robb appointed Dr. Fred A. Baker of Pontiac to fill the unexpired term of Dr. Neafie. Upon motion of Carstens-Boys the appointment was confirmed.

2. The Secretary presented a communication from the Chairman of the Committee on Survey of Medical and Health Agencies in which it was imparted that the committee was actively at work compiling the information that has been obtained through the survey and was now formulating conclusions and recommendations. The report of the committee will consist of some 400 to 500 pages and it will be impossible to have it completed for distribution during the month of March.

The question of calling a special meeting of the House of Delegates for consideration of this report was thoroughly discussed. At this juncture Councilors Heavenrich and McIntyre joined in the discussion. The general expression of opinion was that an adequate length of time should be given to delegates and members to carefully study the report and the summarizations and conclusions that were reached by the committee; that unless such an opportunity was given there would be a tendency towards precipitous and injudicious action, and that without such a study and familiarization with the contents of the report the House of Delegates could not record proper action. The suggestion was made that the report be sent out, as soon as it could be printed, to delegates and officers of county societies; that regional conferences be arranged by Councilors for the study and discussion of the report and that at these regional conferences some representative of the committee would participate in the discussion. It was felt that these regional conferences would enable delegates and members to become familiar with the report and that they would then be better able to act upon its recommendations. At the afternoon session of the County Secretaries an expression of opinion upon this proposal was secured, and the Secretaries recorded their support to holding these regional conferences and to postpone the special meeting of the House of Delegates.

In conformity with the foregoing on motion of Boys-Carstens, the Secretary was directed to write each Councilor and request him to interview the officers and delegates of the societies in his district, and to ascertain from them whether it would be satisfactory and agreeable if such a plan was pursued and that the report be acted upon at a special meeting of the House of Delegates on the day previous to the date set for the Annual Meeting in September, and having secured this information from the delegates and officers in their district to send the same to the Secretary and upon the ascertainment of these expressions the Executive Committee would determine the time and place for holding the special meeting.

There being no further business the Executive Committee adjourned subject to the call of the chairman.

F. C. Warnshuis, *Secretary.*

MINUTES OF THE EXECUTIVE COMMITTEE MEETING HELD MARCH 17, 1933, DETROIT, MICHIGAN

1. Upon call of the Chairman the Executive Committee of the Council of the Michigan State Medical Society convened in the Statler Hotel, Detroit, on March 17, 1933, at 4:30 P. M.

Present: Chairman Corbus, J. D. Bruce, Henry Cook, A. S. Brunk, Henry Carstens, President Robb and the Secretary. In addition there were present members of the Legislative Committee, Earl I. Carr, C. F. Moll, Wm. C. McCutcheon and G. C. Penberthy. In addition during part of the meeting there was also present Editor J. H. Dempster, and Dr. A. H. Whittaker and Dr. N. Sinai.

2. Dr. Sinai representing Dr. Marshall, Chairman of the Committee on Survey of State Medical and Health Agencies, presented a verbal report of the progress of the work. The statement was made that practically all of the factual data had now been collected and were being prepared for presentation to the members of the committee. It was estimated that it would consume about six weeks to edit and print these factual data. It was estimated further that the committee would consume from four to six weeks to review the data, to formulate its conclusions and recommendations and to complete the final printing of the entire report. Dr. Sinai expressed the opinion that he did not see how it would be pos-

sible to save anything more than possibly a week or ten days by working overtime on this summarization.

Discussion was then entered into as to the best method of printing the report and causing its distribution to delegates and officers of county societies in order that they might have a reasonable amount of time for intelligent consideration of the report and its recommendations before considering the same at a special meeting of the House of Delegates. There was also a discussion as to the advisability of calling the Annual Meeting of the State Society in the early part of June and devoting the entire session to a discussion of medical economics. Dr. Whittaker presented the views of certain members of the Wayne County Society and urged early consideration of the report even though all its findings were not available.

There was also an expression of sentiment from the Delegates outside of Wayne County recommending that in view of the economic situation and also the need for time to review the report and formulate an opinion that the special meeting of the House of Delegates be deferred until September. Many of the details surrounding the report, the changing picture that is being produced in the country from day to day by reason of the financial upset and several other related problems were discussed at length by all present. On motion of Bruce-Cook, the Secretary was directed to advise Dr. Marshall that he call a meeting of his committee within a few days, that his committee should survey all the related facts and problems and then report back through the Secretary to the Executive Committee the earliest possible date at which they can complete the report, bring about its distribution and place it in the hands of delegates for intelligent consideration; and upon the securing of this advice the Executive Committee will determine the time and place for holding the meeting of the House of Delegates for the consideration of the report.

It was also moved by Bruce-Cook, that the Chairman of the Legislative Committee should contact Dr. Marshall and ascertain if there are any recommendations in the report that might make it desirable to secure action on during the present session of the Legislature, and that if such action is deemed necessary that the Legislative Committee shall give it their immediate consideration and initiate such action as may in their judgment accomplish the enactment of legislation during the present session of the Legislature.

3. Chairman Carr and fellow members of the Legislative Committee presented to the Executive Committee a review of their activities. It was stated that all the requests and instructions referred by the House of Delegates had been complied with and that bills were now in the Legislature for the purpose of securing the recommended amendments or changes in state laws. Further discussion was directed towards amendments to the Compensation Act, the bills relating to Tuberculosis, Amendments to the Crippled Children's Act, Old Age Pension, Gross Income Tax, Liens for Hospital and Doctors' bills. All told there are at present some one hundred and eleven bills relating to health and medicine that have been introduced in the present session of the Legislature.

Extended and detailed discussion was directed to the reports of the Healing Arts Commission, the so-called Qualifications Bill, and the amendments to the present Medical Practice Act. These two bills emanate from the Healing Arts Commission appointed by the last Legislature. The committee has carefully gone over these proposed enactments and raised several questions regarding the provisions contained in these proposed bills.

The Legislative Committee was instructed to use its best judgment as to the manner in which it would recommend to the Healing Arts Commission the following desirable suggestions:

(a) That the Board be empowered to refuse to issue licenses in Michigan for those who do not purpose to maintain a continuous residence, and also to empower the Board to suspend the license of licentiates who practice only for a short period during each year in our resort areas.

(b) The desirability of definitely fixing the responsibility for investigation and procedure against violators of the law.

(c) To empower the Board to formulate rules whereby they will be authorized to waive written examination of applicants who are graduated from an accredited medical college.

After further discussion, upon motion of Bruce-Carstens, the Executive Committee approved the activities of the Legislative Committee and instructed them to record endorsement of the bill making certain amendments to the Medical Practice Act.

On motion of Cook-Bruce, the Legislative Committee was instructed to approve the so-called Qualifications Law.

4. On motion of Cook-Carstens, the Publication committee, together with the Secretary, were instructed to undertake the necessary investigations and perfect the details for the publication of the report of the Committee on Survey of State Medical and Health Agencies.

5. The Secretary presented a statement as to the advertising income of the JOURNAL and publication expenses. Upon motion of Cook-Carstens, the Publication Committee in conjunction with the Secretary were instructed to review the financial problem of publication and to prepare recommendations for publication economy.

6. The Secretary presented a financial statement of the expenses of the Survey Committee. Upon motion of Carstens-Bruce, an amount of $2,000 was appropriated for the work and the Secretary instructed to pay the incurred expenses just as soon as society funds were available.

7. A communication was presented from Dr. Russell relative to a proposed series of cancer clinics to be supported by the Rotary Clubs of Michigan. The Chairman replied recommending that this matter be first discussed with the Ingham County Medical Society and with Councilor McIntyre, and that following such discussion further details and facts be presented to the Council for future consideration.

There being no further business the Executive Committee adjourned at 11:10 P. M.

F. C. WARNSHUIS, *Secretary.*

FINANCES

The Grand Rapids depository for Society funds was one of the first Michigan banks authorized to resume full banking business. However, the Society's balance is at a low figure by reason of non-receipt of 1933 dues. Practically all County Secretaries collected dues and deposited them in their local banks. The bank "holiday" froze these accounts.

Now that banking business is being gradually resumed it is urged that County Secretaries arrange to remit collected dues promptly.

Proceedings—Annual Conference of County Secretaries Michigan State Medical Society

Tuesday, February 28, 1933, Hotel Pantlind, Grand Rapids

COUNTY SECRETARIES' CONFERENCE

Tuesday Afternoon, February 28, 1933

The annual conference of County Secretaries of the Michigan State Medical Society at the Pantlind Hotel, Grand Rapids, Michigan, was called to order at 2:10 p. m. by Dr. F. C. Warnshuis, Secretary of the Society.

Dr. Warnshuis: I am sure that I voice the sentiment of the officers and Council of the State Society in expressing to you their appreciation for coming this distance to attend this Conference, which is really one of the most important sessions of our state organization.

We have heard a lot about depression and every avenue of industry seems to have had some resulting effect from the depression, but I don't think that we as a medical organization are willing to give in to the existing situation. This program has been provided and created for the purpose of giving the key officers of our State Society, the County Secretaries, an opportunity to come together and to discuss some of the problems that are confronting organized medicine today.

It has been customary to ask one of the secretaries to preside at this meeting, and I shall be very glad to entertain nominations as to whom you would like to have preside at this afternoon session.

Dr. L. F. Foster, Bay City, was elected Chairman.

Chairman Foster: We will proceed immediately to the program as prepared, and will listen at this time to the remarks of the Chairman of the Council, Dr. B. R. Corbus.

Dr. B. R. Corbus: May I repeat what Dr. Warnshuis has just said, that this group is the most representative group in the State Medical Society. It is from this group particularly that your officers of the Society can get the views of the men in the field. I hope that you will discuss very freely these talks that are to be given, that we may know how you feel, believing that your expressions will give the views of the men whom you represent.

These are parlous times, and the tension in the air reminds me very much of those meetings which were held in the early part of the last war. There is a difference which is clearly to be seen. We had at that time men whom we looked upon as leaders; we were pretty well told what our obligations were. Certainly we know, and the papers are continually repeating the statement, that at this particular period we seem to be lacking efficient leaders in all lines. That is true of the medical profession. Your officers who have had placed upon them the obligation of serving as your leaders as best they can, feel their inefficiency. We will do the best we can, we want to do the best we can, and perhaps like the English we will muddle through.

Perhaps it is a good thing that we have not found some outstanding leaders who will tell us what to do; it forces the obligation upon us as individuals, upon you as members of this Society, to endeavor to solve your problems, to obtain your facts that the solution may be found, and it is the purpose of this meeting, as it has been the purpose of meeting of the national organization, of groups of secretaries and of representative men throughout the country (I have been to two such meetings), to present the facts so that in some way we may come to unanimity of opinion so as to what is best to do along the lines which will serve to solve the problems connected with the economic situation that medicine finds itself in today.

At the last meeting of the House of Delegates the Council was instructed to call a meeting of the House of Delegates in February of this year to hear the report of Dr. Marshall's Committee on Survey of Medical Agencies in Michigan. The Council has been forced to postpone that meeting by reason of the fact that the committee with its many fact-finding groups has not yet been able to correlate the facts in such a way that they can be satisfactorily presented, let alone to analyze them and make their suggestions to the House of Delegates. They will be able, so they tell us, to present to the House of Delegates a certain amount of the work which they have done, and they promised us that they would be able to send out certain briefs about the 15th of March.

We are now in the midst of a more serious depression than we were in when this was first talked about, and there comes a question as to whether the Council is justified in calling such a meeting, whether the men throughout the state really want such a meeting at this time. It is a rather expensive thing, both for the State Society and the individual delegates. We don't want a House of Delegates meeting which will not be representative of the entire state. During the afternoon I want to have your ideas upon the matter.

It has been suggested that when the committee is able to send out its brief on the facts which it has gathered, there be regional meetings throughout the state, at which time they will consider these briefs in a more intimate way and at which time some member of the committee will appear before them to discuss the matter with them. That, it seemed to the Executive Committee this noon, might be a very good thing, and that I want your opinion upon.

This program offers a really wonderfully instructive afternoon. I am going to enjoy it and I know you will, too. I am glad you are here. I should like, Mr. Chairman, for Dr. Robb to have the op-

portunity to speak a moment before we go on with the main part of the program.

Dr. J. Milton Robb (President): There are many problems, as Dr. Corbus has said, that are rapidly coming before us these days. If I may express myself before you do, I can see nothing but good come of a meeting in the mid-year of the Secretaries of the County Societies of this state. It was my privilege about three weeks ago to go to Indianapolis and meet the different county secretaries of Indiana, and before that day was over many facts had been placed in the mind of everyone. Many facts will be left with us, even those who have been and are continuously in contact with these problems, for the purpose of letting them simmer during the next few months until we have our meeting in September, or, if there be a meeting of the delegates, that you men who are here can carry that information to them. The facts are that in the solution of our difficulties we must first present our problems and then we must give time for the solution, for the analysis of those problems, a period of time of simmering. I do not believe that we are justified in rapidly coming to any conclusion on the things that we have before us at the present time. We certainly do not want to pass resolutions, we want to make no move that will act in the least as a boomerang when things have returned to normalcy.

I am particularly delighted that you are here to look over the Auditorium and the facilities that Grand Rapids has to offer for our meeting here. I know that you will be able to go back home and give to the members of your local societies information that will bring them back to the meeting in the fall.

Chairman Foster: It has been suggested by Dr. Corbus that a little later during the program we take a few minutes recess and discuss the advisability of holding or not holding the House of Delegates meeting as planned. While the meeting is going on you can roll that question over in your minds.

At this time we have the pleasure of presenting the President-elect of the Michigan State Medical Society, who will present the subject of County Society Unity.

Dr. George L. LeFevre: Dr. Corbus mentioned that we were in a way without a leader. I suppose he meant a leader in this country, not a leader in medicine, because we have in this State Society three real leaders, and Dr. Corbus is one of them. Our President, Dr. Robb, is another one, and Dr. Warnshuis is the third. I think you all realize that they are leaders and they are going to lead the medical profession of the State of Michigan where it will be a great deal better off after this depression than ever before.

We are having some experience that is very valuable, for the reason that this depression did not strike one or two of us; it struck us all. It isn't anything new; it is a little bit more severe than we ever had before. In my lifetime we have gone through four depressions, that is since I have been old enough to realize what a depression is. We really have had five depressions since I was born, because I was born at the end of the Civil War, and I heard a great deal about the depression after that.

In these depressions, as I have looked at them in a medical way, we always find more trouble arising among doctors than at any other time. In good times doctors are always friendly and sociably inclined and they get along very nicely together, but as soon as a depression comes and your income is cut to a certain extent, you realize that when a patient shifts from you to your neighbor you have lost something and you feel it more; consequently you are inclined to say things that you would not say in good times.

The reason I bring up this subject is because of the predicament that your State Society is in with regard to malpractice suits. Malpractice suits are increasing. In some communities they have had as high as nine and ten suits in one district, and that is too many when you stop to think that every malpractice suit starts in our own circle from something we may have said, unintentionally perhaps, but nevertheless we were not cautious. I want to warn you against those things. When any person comes to you and talks about your brother practitioner and says things that you know are not true, you should not listen to them; let him know right off the bat that he is traveling the wrong path; don't let him think you are absorbing all that he tells you, but put him right.

A suit could not go on without having a medical testimony of some kind. Some doctors tell me that they are called and can't help going as witnesses. That is true. If you are subpœnaed you have to go, but you can always tell the truth when you are on the stand. What I mean by telling the truth is telling exactly the position that you would be in if you had been in the other doctor's place, taking care of that patient.

Another important subject which I intend to mention for the benefit of the County Secretaries is this: the Secretary of the State Society issues a little bulletin which informs you of certain important things that are going on in the State Society. You are supposed to read that to your society. I don't believe half the Secretaries ever read them; they neglect it, forget that they have received them, or don't think it is worth while. Every letter that the Secretary sends to the County Society Secretary is an important document; it is important because it tells you what is going on, and you should transmit that to every member of your society. It does not make any difference who is your speaker or what is going on that night, it is the duty of the secretary, after he has made the roll call and read the minutes of the previous meeting, to read the communications; they should be read and discussed, and there should be time for discussion of whatever that letter transmits.

Another important thing is to try to get every member in your community to join this society. He may have some faults; he may not be right up to the standard of a physician as you consider it, but you must realize that if you bring him into your fold you may raise his standard and make a good physician of him. If you will not take him in, if you let him drift by himself, he will be a menace to your society and to the rest of us.

I want you to remember these few points that I have brought out, because they are

so important to the success of medicine and also to the success that we may have in preventing socialistic or contract practice medicine or state medicine. Those are the things we are confronted with at the present time and toward which we may be traveling faster than we know. In these times doctors are prone to accept almost any kind of position that brings in ready cash, but it will be only of short duration and won't be worth anything to them after business gets good again, which is bound to be the case. Times like these come every seven years, practically. You will have them to go through again the same as now, and this will be a good lesson on how to conduct yourselves for the next seven years in order to see that you don't get in this predicament again that a lot of you are in now.

Avoid debts. If the doctors in this community didn't have any debts they would be fairly well off. The thing that takes most of the income of the doctors today is the interest they have to pay. I know these are hard times for all of us, but bear just as much as you can and keep up the standard of medicine; elevate your brothers instead of trying to pull them down; always have a good word to say for your own brothers, and you will feel better and everybody else will feel better satisfied. I hope you will carry this message home to all of the members of your society.

PUBLIC RELATIONS

Chairman Foster: At this time we will hear a discussion of the subject of "Public Relations Committee Opportunities," by Dr. Ferris N. Smith of Grand Rapids.

Dr. Ferris N. Smith: We find ourselves at the moment in a period of economic and professional transition which is of great importance to every one of us and of consuming interest to every one of us. It seems to me that we are coming to the close of one epoch in the practice of medicine and beginning another. The entire question of what is to happen to practice in the next few years is obviously of vital importance to every one of us individually and of equally great importance to our various organizations. We have had a long period in which there has been indifference, professional lethargy so far as the lay invasion of medical function is concerned, an invasion which has had no counsel, no direction whatsoever upon the part of organized medicine. I have in mind particularly the activities in various cities, such as clinics for tuberculosis, clinics for infant feedng, clinics for this, clinics for that, the attitude which has grown up in the boards of various hospitals that a doctor is just permitted to practice in the hospital, that the policies, both professional and administrative, will be determined by a lay board of trustees—all things of that sort are evidence of a lack of assertion on the part of the doctor individually and upon the part of his organization. All that has brought us to a point where these lay efforts are commencing to crystallize.

Most recently we have had in the report of the national committee investigating the cost of medical care, the greatest crystallized evidence of lay effort to tell us what to do.

Our responsibility at the moment is a dual one, as I see it: First, an organized effort to pull down, to tear down, many of the things which the layman has built up; secondly, to construct something in the operation of which we have a definite part. To that end county societies, state societies, the national organizations, have taken for some time past an increasingly great interest in this matter of medical economics. All of these organizations have appointed committees, either known as committees on medical economics or public relations committees. Personally I like the latter term better because it includes everything that is included in the term "economics" and then some more. After all, the thing in which we are vitally interested, I believe, is public relationship.

What are the opportunities that are afforded a society through its public relations committee and the ultimate approval of the efforts of that committee? First, probably, and biggest of all, is the reverse of the situation in which we find ourselves. *Instead of being led we ought to become leaders.* In a subject which is vital to ourselves we ought to take the major part in molding public opinion, so to me that is the greatest opportunity of a public relations committee. I believe that that committee's efforts should be confined to such public relations as have to do with the ethics and the practice of medicine. I don't believe that a public relations committee should be in any wise interested in public medical education and things of that type. Possibly if I touch upon the several points which are of prime interest to

the local public relations committee I will have touched upon the points which are of interest to all. I believe that Grand Rapids, Kent County, is a typical community so far as the practice of medicine is concerned. We have had all kinds of public activities that have been infringements upon and have made demands upon medical coöperation for their success, and in no instance has the County Society as a whole ever been consulted as to the policy or the operation of these activities. In several instances the county society has attempted to intrude itself into the administrative policy of some of these activities, and with no success.

In the twenty years that I have been a member of Kent County Medical Society I never have seen any real society organization for an outside contact until within the last year. I have seen several abortive attempts to gain some of our professional rights in this connection and have always witnessed the breaking of the strike by plenty of willing "strike-breakers" in the society. We have had "medical scabs" the same as the brick layers' union and the marble setters' union.

In the last year, or possibly the last eighteen months, since there has been such a general interest in this matter of professional relationships and public relationships, during this period in which the individual practitioner has informed himself better on the general trend of medical organization, we have had an entire about-face in our county society. We had the pleasure of witnessing the unanimous adoption of a plan submitted by the Public Relations Committee. I don't think any medical society ever did anything unanimously before; however, that happened here. We have had, subsequent to that, an example of excellent organization of a smaller group of the society in attaining a point which is very vital to this whole public relations movement, that is in obtaining from one of the hospital groups in the city a recognition of the county society as a factor that had to be dealt with in any hospital consideration—obtaining this in spite of the fact that the stand had been taken that no relations whatsoever would be maintained with the medical union or the medical trust. That point was gained only as a result of organization.

Our opportunities are various: First, to establish the medical society and the medical practitioner in their proper relationship in all considerations of the community that have to do with medical problems, to educate the public to believe that the doctor has some executive ability, that he is able to think along other lines than medical lines, and that he is a factor that must be consulted before any of these problems can be settled. We have to do at the moment in this town with a mutually agreeable fixed rate plan in our various hospitals for the care of people in certain earning brackets; we have had considerable to do with the lay agencies connected with our community chest, that is the lay agencies dealing with medical problems, and have been influential so far in effecting an amalgamation of the three principal constituents of that organization. We have been properly and still are properly interested in the management of the medical care of indigents in the city, the management of the city physician's office, and likewise we are interested in the care of similar people upon the part of the county.

I believe that these things are the opportunities that confront the Public Relations Committee, in general molding public opinion and directing the activities that are going to settle the plan of practice for the average practitioner. I think that we will all admit that there is upon us now the beginning of a radical change.

In that connection and in conclusion I believe that we all ought to approach this problem in a spirit of reciprocity, in a spirit of willingness to give and take, not trying to impose our ideas any more than we are willing to let some lay organization impose its ideas. I think we must have a considerable spirit of tolerance along the line upon which Dr. LeFevre has just been speaking. In these days every one of us feels the heavy hand of economic depression, some of us in distress; men are reaching out to do things in practice that they ordinarily would not do, things that are still within the realm of ethics, of good practice, but things that might be controversial. I think we must have a big spirit of tolerance for that. Throughout the whole country there is no unanimity of opinion as to what constitutes good ethics in certain types of practice, and one idea in California is an entirely different idea in Michigan or Pennsylvania; in Texas we have an example of another type of practice which may not be acceptable at

all in New York. *We must get the idea that each of these communities will have to settle its public relations problems, to a certain extent, in a manner to fit that community, and it cannot go further than to make those conform to general rules or to general principles laid down by our larger organizations.*

Chairman Foster: Dr. R. L. Finch, of Lansing, is going to talk to us at this time on the subject of Enlisting Community Good Will.

COMMUNITY GOOD WILL

Dr. R. L. Finch: I believe that fundamentally before we can consider the subject of enlisting community good will we must first realize that the county society is the fundamental unit of the medical men. Maybe in some of your societies you do not have the controversy about which is more important, a staff meeting of the hospital or the meeting of the county society. In Lansing we have two hospitals, and a staff in each hospital; they meet once a month. That means the first Tuesday for one hospital, the second for the other hospital, the third Tuesday for the medical society. But I believe that the real fundamental unit must be the county medical society, and I think starting with that as a premise you can probably get some idea of how we may enlist community good will through our society.

The A. M. A. may do a great deal, the state society may do a great deal, but I believe that the real work of the contacts between you and the community must not be through the larger organization *but must be through your own county society.*

Probably all of us have some pet ideas (I have a few) of how we are going to enlist community good will through our societies. I think one of the first steps is by process of education. How are we going to educate the community, or, to steal Dr. Christian's thunder, make the people health conscious?

Recently I was talking to a young lady who told me an experience she had in the grade schools. She remembered that a toothpaste company sent around to each desk a tube of toothpaste and a toothbrush, with the admonition to "See your dentist every six months." Amos and Andy did nothing new; that was some twenty years ago. She told me that she never forgot that. One problem we have is to sell ourselves first to the schools. We read in the papers, occasionally, that Dr. So-and so was talking at the Eastern High School or the Western High School Auditorium on a subject of health; we read that Dr. So-and-so was talking to the Parent-Teachers' Association. I believe these things should be done, but I think they should be done under the direction of organized medical societies and not promiscuously by having some lay person ask some doctor whether he is qualified to talk on a certain subject. I believe the county society can enlist the good will of the community first by getting the children in the schools organized by the society, sponsored by the society and regulated by the society.

That also applies to the parents through the Parent-Teachers' Association. We, as members of the county society, can have an organized program whereby speakers of our society can go out to the Parent-Teachers' Association under an organized plan and sell ourselves to those parents.

The third medium, of course, is the newspapers. Everyone nowadays reads Dr. Brady. Just the other day a patient was telling me, "Dr. Brady said thus and so." We would be surprised if we knew how many people read the health columns of the newspapers. On another page we see that Dr. So-and-so is advertising a cure for cancer, that this quack and that quack are advertising in the papers. This may be farfetched, and it may not be possible, but I personally should like to see all health discussions in the newspapers really censored by the county medical society in the county in which that paper is published. I do not know whether that can be done, but it is a problem we must face.

Just recently in our county in making our contract with our city commission to take care of the indigent sick, we told the commission that we would endeavor to use part of the money for the benefit of the community so the people at large would get at least a little benefit from the few dollars that we are getting for taking care of the sick. After much discussion we decided to have a public meeting sponsored by the society, and we had a speaker from the National Economy League talk in Lansing before about 1600 people. We realized that taxa-

tion was one of the big problems of the day, discussed by everyone, and we had Captain Mills, the field secretary of the National Economy League at Washington, come to Lansing. He met with the Kiwanis Club at noon, and in the evening he spoke to an assembly of about 1600 people. It was a free meeting sponsored by the Medical Society, but we had coöperating with us practically every organization in the city of Lansing. We had the bankers, we had the bar, we had the education department, we had all the service clubs, we had the P. T. A., we had the nurses' association, we had the auxiliary, we even had the foreign wars' association, and practically every organization coöperated with us to put on this public meeting. I believe there is nothing we have done in the last year, probably in the last ten years, that so sold us to the general public. We received a great deal of publicity and comment, and the question began to be asked: Why is the medical profession interested in economy? I think everybody is interested in economy, and certainly if anybody should be, the physician should be. You would be surprised how little that meeting cost.

I believe the medical man must remember that he also should be a good business man. We all know what it means to collect our accounts. I recently had a letter from the personnel director of one of the automobile concerns at Lansing in which he told me that many of these men had not received a full pay check probably for months, and the first time they received a pay check there were six or eight garnishments against it; they didn't have time to get even a few of the necessities of life before all the creditors in town were right on top of them. He requested some coöperation from the Medical Society.

In Lansing, the same as you have here and in some other towns, we have the so-called credit exchange, which I think is doing a wonderful work. They are not permitting any garnishment, any judgment, any suit, against a man until he has received at least three pay checks, which gives a man a little breathing spell. They are endeavoring to get all the man's accounts together and prorate them; they decide how much each creditor will get.

How does that apply to us? If we are fortunate enough to get our bill in ahead of anybody else, how, for instance, is the coal man going to feel toward us, how is the grocer going to feel, how are the other merchants going to feel? You would be surprised at the good will these men have, not only toward us but toward one another by the fact that they are getting something, not as much as they have coming, but they are getting something at least and the man still has enough to carry on for some time.

There are many other things that I believe the credit exchange could do for us as medical men in acting as a buffer. The very fact that they will give us information on the credit of certain individuals is valuable. When a new patient comes to you, over the telephone you can find out that he owes Dr. So-and so, Dr. So-and-so, and all the stores and now he is coming to you to try to get credit. You can then say to that patient, "If you will make an arrangement with the credit exchange whereby you will take care of these bills so that everybody will be getting a certain amount, I will take care of you." Those are things which not only help you but make the community feel that you are not out to get everything you can out of them.

Along that same line, there is a new bankruptcy law before the legislature at the present time. We know what bankruptcy has done to individuals. We know how many men are going into bankruptcy today. Unfortunately, some physicians are going into bankruptcy. I think if we support this law there will be less bankruptcy than before. A trustee is appointed; the man who owes the money pays him 3 per cent, the man who receives the money pays 7 per cent, and for that 10 per cent he handles the man's accounts and prorates his income to the creditors, depending on what the income is, and saves the man from going through bankruptcy. As a result he saves all of us money.

These are just a few ideas, but I believe they can be worked out; I know some of them are being worked out, while others must have a lot more thought and time in order to be made workable. The main thing is the education of the people from the child to the parent and the community at large through public meetings. We are going to enlist more community good will in this way than possibly in any other way.

Dr. Warnshuis: Will you tell the secretaries about your county meetings and dinners?

Dr. Finch: By our arrangement with the city we get a certain stipend per month. In order to have community good will we must first have good will among our members. If we don't have them all pulling together with a fine spirit we are not going to be able to create a coöperative spirit in the community. With that income, these men who belong to our society are taking care of the indigent cases in the hospital. The city physician takes care of them in the home, but in the hospitals, whether the case is surgical or medical, it is taken care of free of charge. We do two things with that money. First, we pay dues; every member of the county society has his dues paid for him. Secondly, we pay for the dinners. We have a dinner once a month, at which time we have an outside speaker. What is the result? Everybody says, "When is the next meeting? Wasn't that a wonderful program? What is the next one going to be?" It has added to their anticipation.

We also have a bulletin which comes out just before the meeting. We put all our minutes in that, and we take care of most of our business through the bulletin. We are securing a wonderfully coöperative spirit among the individual members of our society, which I think is primarily important before we can carry it into the community. Paying the dues and the dinners brings wonderful turnouts, we are getting excellent audiences for our speakers, and everybody goes away feeling it was good for him to have been there.

Chairman Foster: We are now able to revert to the third subject, which is of unusual interest in times like these, the question of "Contracts for Indigent Care," which will be presented by Dr. F. A. Baker, of Pontiac.

CONTRACTS FOR MEDICAL CARE OF INDIGENTS

F. A. BAKER, M.D.
PONTIAC, MICHIGAN

The medical care of the indigent is a problem coming to the attention of the medical profession in a manner that challenges us. The increase of indigency is setting up an unprecedented problem, and the profession is being asked to do more for less, than at any other period in our history.

The inheritance of this social catastrophe brings an added burden to the medical profession, whereby we can at our will and by our handling of the problem, increase or decrease indigency. A paternalistic attitude by the profession may mean that by our leniency we may contribute to a future increased demand for free medical service.

There has been so much said and written, on the care of the indigent, that it is difficult to assemble the facts, so confused has become the literature with irrelevant matter.

To me it seems there should be no very difficult problem in this matter. There are some certain fundamental points which should always be in mind.

The principle of payment for services rendered is, I think, a fundamental issue. There is need for education on this point. Too long has the medical profession let the public think its services were to be taken, yea, commandeered, without any consideration! The success of any plan depends upon this point.

I have been asked to discuss with you today, "Contracts for Indigent Care." I do not think there is much to discuss as far as a contract itself is concerned. A contract is nothing more than a promise to do a certain thing, to fulfill an obligation for a consideration. A contract is one thing. The medical care of the indigent is an entirely different matter and should be quite apart from the contract.

A contract for indigent medical care may be based on two or three different points of remuneration.

1. The lump sum basis which is that incorporated in the so-called Iowa plan.
2. A fee schedule.
3. A percentage plan on the basis of so much per family per month.

Under the Iowa plan a lump sum is charged, and this lump sum is generally based upon the alleged known costs, or an estimate by a group of physicians in the locality. It is more or less a guess.

The fee schedule is based on a reduction of the prevailing fees for work in that community.

The third method is one which in my opinion has merit.

Contract practice in Michigan is not new. I think I can say I am acquainted with one phase of contract practice as it was in force in the upper peninsula of Michigan. Our mining and lumbering locations, all with few exceptions, were administered medically by contract physicians. It was a high

type of service, well administered and entirely satisfactory from the viewpoint of the public.

The base scale of payment in most cases was a charge of $3.00 per family per month (single persons considered as a family) which included surgery and obstetrics; a fee of $1.50 to $2.00 for medical care not including these.

It seems to me this fee can be used as a basis for bargaining, once the point of policy, that medical indigent care should be paid for, is sold to the officials with whom we must deal. I see no reason why a group of physicians cannot approach public officials with this proposition and say to them, "Here's what contracts for medical care are worth, what percentage of this will you allow for the care of the indigent?"

The very fact that you have before you figures which have been accepted is evidence that we are business-like and that there is no guesswork going on. It impresses the official and usually he is a business man and is reasonable. It places the burden of naming the amount where it belongs. So much for contracts. I can think of nothing more to say on the point.

As for handling the patients once a contract is made, ah, that's another matter! My experience with medical men, where patients are concerned, is a subject too delicate to treat here. Doctors can be mean, petty, selfish, and jealous. They react just like human beings generally, which should remind us that we are not such wonderful beings after all.

As a preamble to any set-up of medical care of indigents, may I call your attention to a problem that is to face the profession, probably soon. In the economic set-up in this country we are faced with the problem of caring for that stratum of society which we may term the border-line case. These are those whose income is such that they do not fall in the indigent class, but who cannot bear the financial burden of sickness and hospital costs.

I am of the opinion that any plan for care of indigents should contemplate the bearing the plan may have on this problem. In other words the plan should be made so that it can, without much difficulty, be modified so that the border-line class can be included.

Several points in considering any plan are evident and should be accepted as working bases. It is not necessary to elaborate upon them, particularly.

1. It is plain and generally accepted that there should be the freedom of choice of physician. We should certainly be optimistic enough to think that not all of these people will always be indigent. Some are my patients and your patients and some day we hope to have them again as patients in happier financial circumstances.

2. It may be necessary to extend that freedom of choice to the hospital. This matter, however, is usually one the responsibility of which can be left to the component of government with which one is dealing.

3. The whole responsibility of the medical care of the patient should be left with the medical profession or group. I still think the medical man capable of caring for the indigent patient in just as fair and adequate a manner as he does his private patients. The detail of handling those who do not have family physicians can be easily worked out on a rotation plan.

4. The hospitalization of patients should be regarded in the same manner as in the case of private patients. A separate contract can be entered into by cities, villages and other communities with available hospitals and should not be a responsibility *per se* of the medical group. The same may be said for drugs and appliances. The city or community can work out those details and they should not be our responsibility.

5. Clinics. There is much difference of opinion regarding the establishment of clinics. I think the present trend is to avoid as much as possible the establishment of outpatient clinics. Personally, I can see no good excuse for their establishment or continuance under a proper plan of handling patients. I think we must accept the proposition that for the present at least adequate medical care is given our patients in most all localities in Michigan under our present plan of private practice. The indigent need have no less adequate care nor should they expect better care.

I, too, think if clinics must be established, they should be established by the medical men themselves, thereby keeping to themselves any honor or glory that may accrue. Certainly the physician entirely loses his identity in the present clinic set-up. A clinic, too, increases the cost of medical care to the taxpayer, a very important person

these days, and one whom we must not overlook.

Now as to the payment for our work. How should it be handled? Well, here's where the argument usually starts.

To my mind we should look around us a bit and observe what is the trend of the times and what it means to us. Never in the history of organized medicine has there been a time when there was needed clearer thinking and unity in the ranks. One cannot read the things written about the medical profession, of which there is too much, without realizing that we have been picked, out of all the economic groups, and made a problem! The "Costs of Medical Care" committee at least did one thing. They have focused the attention of the world upon the medical profession. I deny there is any greater problem in the costs of medical care than there is of legal care, banking care, prohibition care or Veterans care, but that doesn't change the picture.

We need unity—unity of thought, unity of action. We must do nothing in this setup that would tend to divide the profession, rather we must do everything that is possible to avoid dissension.

Certainly there is one plan of indigent care that fills the need and has stood the test of time in the communities in Iowa where it has been in effect. The so-called Iowa plan calls for a lump sum payment which is spread evenly among the doctors and which is, in my opinion, the foundation of its success. Certainly no fee basis of payment, unless it, too, is spread equally among the physicians participating, can be as effective. It is not necessary to go into the details of the plan. They are readily available. It does seem to work and it can be modified and adapted to fit any community. Last, but certainly not least, it creates a wholesome atmosphere among the medical men themselves which, as I have inferred above, is the essence of unity.

SUMMARY AND CONCLUSIONS

Contracts

1. A contract should be simple.
2. It should be based on definitely known costs of care.
3. It can include payment on a fee or lump sum basis.
4. Separate contracts should be entered into by taxpayers with druggists and hospitals.

Indigent Care

1. The entire responsibility of the indigent care should be left to the profession.
2. There should be freedom of choice by patient of the physician and possibly the hospital.
3. Clinics should be discouraged. Physicians should not submerge their identity.
4. Equal sharing of proceeds by physicians is to be recommended as the most wholesome and profitable.

Chairman Foster: Dr. Christian will present his discussion of this paper.

Dr. L. G. Christian (Lansing): The question of the care of the indigent first came up in our county about a year and a half ago. For many years we had been struggling with the problem of free care in the outpatient department of our hospital. We worried along with it and didn't know just what to do about it until the *Bulletin of the American Medical Association,* in December, 1930, gave us the Iowa plan. We went to work on that, and after many trials and vicissitudes finally sold to our city council a contract for the care of the city patients entering the hospital.

I was interested in hearing Dr. Smith mention strike-breakers in the medical profession. I leaned over and said to Dr. McIntyre, "He's stealing my stuff." There are just as many strike-breakers in the profession as in a labor union. We found them, spotted them, tabulated them, and set them aside in our county. A great many of the difficulties that arose in selling this contract to the city came from groups that should have supported it. We were trying to get the care of the indigent on a sound basis, only to find that our hospitals were not backing us, and we had to go to them about it. One Sunday afternoon a group of us sat down and talked to the boards of the two hospitals. One of the lawyers on the board, in his best cross-examining manner, said: "Do you mean to tell me that a county society, an outside organization, means more to you than this staff appointment?"

We had the temerity to suggest to him that his hospital was only a hospital because we accepted appointments on its staff, and that it was only four walls until the doctor walked in.

The plan finally went across, and then we sat down to work out the details, which, in our county, are different from any other county because there are no two problems alike. The first thing that we did was to get a surplus and pay our county society dues. We have monthly meetings, which are all dinner meetings. We are attempting to use this fund that we are earning in our two hospitals to build up good will. We went to the Episcopal church one night; we are going to the Lutheran church another time, and we are going around and coming in contact with the women of these churches; we are buying a good dinner, we are not niggardly with them, and we are paying what we would pay the downtown hotels. We believe that will be a factor.

The most important thing that has occurred in our county has been unity and harmony. There has been no county in the state of Michigan that has given our Council so much trouble and worry and thought as Ingham county. Ingham county, a few years ago, tried to have a society in which they chose a few men and organized, and it became the duty of a few of the broader visioned men to break that up. Our attendance at meetings previous

to our contract was always the same thirty-five or forty men. We have always had good speakers; the quality of the meetings insofar as the speakers are concerned is not different than before, but the fifty or sixty who formerly stayed away are coming. What has happened? It is the free dinner. They come, you give them a good feed and then a good pep talk and proceed with the business of the day.

Last year in the county we had 84 members who paid their dues; already in 1933, we have 93 members, and others are struggling to get in. We have a way of checking up on them. We bring them in on a year's probation, and at the end of the year we vote on them again to see if they stay. Two men in my acquaintance who never belonged to a county medical society have applied for membership within the last three weeks.

To me the outlook in the profession is totally different. Inside we are working together, standing shoulder to shoulder, and I am sure that we can put over any proposition in Ingham county that is good for the medical profession as a whole.

The attitude of the public has changed. At the final conference of the committee with the city council last year we fought them so hard that they asked for two of our members to be removed. We smiled and added two new members. This year, less than a month ago, a new change of policy of the city government toward hospitals and clinics and in the matter of the care of the indigent and in welfare work got the crowd together, and they called the president of our society to come down and tell them what the doctors thought of it. That could not have happened a year ago, when the council knew more about this thing, so they claimed, than the physicians themselves.

They have allowed us to put out a bulletin that we think is doing an excellent work. The men who are interested in the bulletin drop around casually and say, "Dr. Jones had a good article in the bulletin."

"Yes, it was a good article. I read it. It is a good bulletin."

Our next plan for expenditure of the county society dues is to make every member of our county society a Fellow of the American Medical Association and give him a Journal to his liking from that organization.

I have not discussed Dr. Baker's paper, but merely the benefits that have accrued from such an arrangement with our council.

There is a lot more that can be said. The care of the indigent in your county is your rightful postgraduate work. We are using it as such in Lansing. The individual indigent patient is getting better care than he ever had before. The men are prompt, conscientious in their service in the hospitals, even writing their histories and keeping up their progress reports. Consultation is a frequent thing. From this we have established that the taxpayer is the man who is responsible for the medical care of the indigent, that the county medical society is the group to give that care, that the doctors, since they are in this business, should know more about it than the laymen, therefore they are calling upon us at this time to help them solve certain knotty problems that are arising in their welfare and hospitalization work.

Chairman Foster: Will Dr. Louis LeFevre present his discussion?

Dr. Louis LeFevre (Muskegon): In discussing Dr. Baker's paper there are a number of points that are interesting and that show the different viewpoints that many of us in Muskegon have held for some time. In order to lead up to the difference, I think we had better go over the basis, the legal authority for taking care of the indigent.

In 1915, the state legislature passed an act which gave the authority to the probate court of the county to hospitalize indigents who needed hospital care at the University of Michigan when any practicing physician in the county certified that they were in need of and could be benefited by hospital care. That established the principle fifteen or twenty years ago that the county should be legally and financially responsible for the hospital care of these indigents. But if you will take time to read over that act sometime, you will see that there is not a mark or a comma or a period in it which has any suggestion of having been put there by any medical men. I don't know who wrote it, but it was written by some lay people, somebody outside the medical profession, and as a consequence the authority, the responsibility, for expending the money of the county in the care of indigents has been divided among all the medical men in the county, so none of them are taking any great personal responsibility, although they centralize the responsibility to determine the indigency of any of these people in the probate court. They knew enough to put that on one person, but the determining of their need for hospital care was left to all the medical men, dividing it among all the men of the county, which seemed to me to be a great administrative blunder.

As a result of that, there was no authority to spend money for the care of these indigents anywhere else. It did not provide for their care anywhere except at the University of Michigan. As the result of dividing the responsibility among all the medical men, we have created the situation in a great many counties that people are being hospitalized at the University of Michigan for things that they would not be hospitalized for if they were private patients. In one county they tell me people are going to the University of Michigan to have their tonsils out, and the railroad fare is three times as great as the highest fee paid for tonsillectomy in that county—just the railroad fare alone to Ann Arbor.

In addition to that, we have patients being sent to the University of Michigan for treatment without having been seen, of course, by anybody at the University Hospital first; that is, the physician responsible for authorizing the care of these patients at the University seems, in many cases, to have thought: "Well, if the county will pay their expenses at the University I am not going to spend any of my money or time taking care of these people here," and as the result of that patients have gone down there who were not ready for operative treatment, who required several days, sometimes several weeks, of preparation first, and all that has added hospital expense to the county, whereas if those people had been hospitalized in their own home towns or their own home hospitals, whatever preparation was needed could have been done outside the hospital before they ever got there and that would have been time and money saved the county. We have found that patients at the University of Michigan spend, on the average, eight days longer than they do in their own home hospitals. That is added expense to the county.

These indigents are going to be taken care of. The medical profession, as Dr. Baker has said, have always done it; they have done it willingly and without pay, but since the state has established the principle that the county shall pay for them, if it can be done better or less expensively at home the county should pay for their care at home and they should pay the physicians for taking care of them at home; if the physicians can do it better at home, more quickly, and less expensively to the county, it is only fair and only reasonable.

To bring about a situation of this sort it is neces-

sary to convince the boards of supervisors of the county that such is the case, that it can be done better at home and less expensively at home, and better for the patient. To do that you have to overcome a lot of objections and arguments that to the medical profession seem silly and trivial. Boards of supervisors, for instance, at least those that I have come in contact with, seem to have a notion that somehow or other the doctors have something up their sleeves. They are suspicious of us; they are suspicious that we are trying to do something to benefit ourselves more than the indigent sick. Any agreement that is drawn up to care for the indigent at home, it seems to me, should be drawn up in such a way as to prevent any suspicion that the medical profession or any of its members are in any way deriving more benefit from it than the county or the indigent.

Dr. Baker brought up the point of giving the indigents free choice of physicians. That is what I was leading up to. No doubt that is the best solution so far as the indigent is concerned. They would all rather choose their own physicians and their own hospitals, and it would be better if they did, except we are dealing with a third party, the board of supervisors. They are the ones who authorize, the only ones who can authorize, the paymen of the bills to the physician and the local hospital. If the board of supervisors should suspect that the physicians are sending people to the hospital who do not need to go to the hospital, just because they will pay their expenses and they will not pay a local physician to take care of them, there would be no more care of the indigents at home, they would again go to Ann Arbor. Or if the board of supervisors suspected that certain members of the medical profession were digging up and looking out for indigents whom they could send to the hospital, indigents who are not always indigent, indigents who have relatives who are not indigents, relatives who are fairly well off; if they suspected the doctor of digging up people like that and saying to them: "I can get you in the hospital and get the county to pay the bill. I'll do that service for you, but, of course, I would expect you to pay me, or if you can arrange to have your friends or your relatives pay my fee I will get the county to take care of you," you know what they would do. I don't suppose there are many medical men who would stoop to such as that. I hope there are none, but you will not convince a board of supervisors that there are none. If by any chance one of these doctors should take care of one of these indigents later as a private pay patient, their conversation resulting from that might lead up to such a suspicion, and then, of course, the agreement for the care of the indigent sick in that particular medical society probably would be off.

That is just a different viewpoint. Dr Baker may very well be correct. He may not be as suspicious of the medical profession as the boards of supervisors, he may not think the boards of supervisors are as suspicious as I think they are, but time will tell which way will work out the best for the public and for the taxpayers.

I know that the medical profession must take the lead in the care of the indigent sick, because they are going to be taken care of some way, by law or by the medical profession. We had some experience in our community with what happens when the medical uprofession does not take the lead. One of the physicians told me about a patient he found who had syphilis who was indigent. He told me he didn't know what to do with her, he couldn't afford to buy salvarsan or mercury for her, so he told her to go to the welfare director and get an order to be taken care of at the expense of the city. (This was before we had a contract.) The welfare director, a $1,500 a year clerk, without any more than a high school education, called up the physician and said: "I will authorize you to take care of Mrs. So-and-so. You may give her six doses of neosalvarsan at $2.50 each." That was all the treatment he authorized. That is what happens when the lay people have to take the lead in the care of the indigent sick. If the medical profession take the lead and show the people how the indigents can be taken care of adequately, properly, and at the least expense to the public, then they will put the matter in the hands of the medical profession, but if the medical profession does not do that, some lay organization, some welfare outfit, some group of reformers, will organize for that purpose and not only tell the doctors how to treat the people but they will tell them what they are going to get for it and they will take all the credit themselves.

Chairman Foster: Now we come to the last subject on the program before the round table discussion, "Radio Broadcasting," by Dr. R. H. Alter, of Jackson.

RADIO BROADCASTING

R. H. ALTER, M.D.

JACKSON, MICHIGAN

Only a few years ago radio was just a novelty—an alluring device of interest in most communities to those who enjoyed dabbling with electrical apparatus. The novelty, however, of the almost inaudible crystal receiver had scarcely worn off until a newer type of radio put in its appearance which left little to be desired as far as volume and tone were concerned. Today radio stands as one of the most important means of communication and agencies of advertising. There are few homes today in which a radio may not be found. The housewife, on arising, dresses while some school of physical culture broadcasts its setting up exercises, she eats breakfast listening to the number of calories in the breakfast food she is teating, she does the family washing while the Soapy Suds Company is telling her that by using Soapy Suds the washing becomes an actual pleasure. When her husband comes home in the evening the radio tells him to use those Pep drops sold by all leading druggists and endorsed by prominent physicians for that tired feeling and to smoke Snappy cigars to avoid halitosis. Why today the children can not even study unless a jazz band is blaring forth with volume turned full on. Of course, if one gets tired of all this ballyhoo he may at no greater inconvenience than the twirling of a dial secure the music of the mas-

ters, thrills of exploring, or the wonders of science.

With this increasing interest on the part of the public in radio it was only natural that big business should more and more utilize this method of communication for their own interest. They were willing to pay the operators well for the best hours. As a result purely educational programs sponsored by University and educational groups were crowded off the schedule as no time was available. Moreover in their eagerness to sell advertising time the products were often accorded less careful scrutiny than they deserved with the result that often misleading, fraudulent and sometimes vicious statements have been imposed on the radio audience.

The firms using the radio for advertising quite naturally wanted to secure the interest of their audience and it is interesting to note how frequently they have used the health appeal as the keynote. These are oftentimes far fetched and irrelevant, but the average citizen listening to all this is unable to choose between the Indian herb doctor, the crystal gazer, electric blankets, jiggle belts and the source of reliable medical advice—the physician. Certainly the broadcasting of such unreliable information concerning medicine and health is sufficient justification for the medical profession to maintain a comprehensive popular radio health program.

Now let us consider what comprises a comprehensive popular radio health program. In the first place in order to be complete the program must reach the greatest number of people both young and old that is possible and at a time when they are in a receptive mood. The available radio listeners who potentially constitute a radio health audience fall into different classes during the course of the day. Their moods also vary with the hour of the day. For example during the early morning hours the housewife is busy getting breakfast, the husband dressing and reading his morning paper—the school children are rushing about getting ready for school. Everything is hurry in the average American household and the radio is usually idle. If anything is tuned in it is usually some catchy popular music probably interrupted now and then by the efforts of some physical culture teacher trying to instill a little pep in his audience before their day's work begins. A few witty remarks might go over well at this period but not a discourse on what to do in case of a broken bone. Following this period comes a time when the children are in school, the husband at work and the women doing the morning's housework. Now she at least is in no particular hurry. The radio is likely to be turned on and left on. She doesn't fool around changing from one station to another. This is a good time to talk to the women and the longer talks are especially good at this period. After this comes the lunch period. Again there is more or less hurry. The children are home again from school. The husband rushes out from office or factory to some lunch counter. If a health talk is given at this period it had better be very brief. Five minutes is long enough for this period. In the afternoon comes the bridge and matinee period. It may be easy or very hard to break into these groups, depending upon how seriously they take their social obligations. Then comes the evening period for dinner, theater, dance and family gatherings. This represents the time when the most extravagant expenditures are made for advertising programs. It will be seen then that the morning hours will reach mainly the housewife, shut-ins and sick; the noon period will reach a hungry, hurried, mixed group; the afternoon period is mostly for the women; while the evening period is sure to reach the largest group—a mixed group of both sexes and all ages, but one which changes as the hours advance. Dr. Leland, who has had considerable experience in radio work, recommends 10:00 o'clock as the best hour in the morning, 3:00 o'clock for the afternoon and 7:30 for the evening as the best period for health talks. This will vary, of course, in different communities and with the programs which precede and follow the talk. A brief talk just before a popular program or immediately after is desirable.

The frequency with which health talks may be given probably will vary in different communities, but once a week seems to be the common practice and is probably sufficient. When unusual situations arise such as an epidemic in which there is considerable anxiety more frequent messages may be justified and are always well received. The audience is always in a receptive mood at these times and is anxious to learn anything

bearing on the disease and especially its prevention. The manager of our local station in Jackson has gladly consented to give our county society or the City Health Department the privilege of broadcasting special releases at any time we deem it desirable. At times when there is publicity in the local papers concerning health problems it is well to take advantage of the interest created by this publicity and coördinate the radio health talks with this subject. At all times it is a decided advantage to have some degree of stimulation and support from the local paper. Mere listing of the subject and time of broadcast is not the most satisfactory form of publicity. It is often possible by some catchy title to influence many to tune in for the entire program.

The subject material should embrace all phases of health, and written in terms which the laity may understand. Each society should have a committee to go over the talks releasing only those which are thoroughly intelligible to the public and free of ambiguous statements. The subjects should also be made seasonal. September is a good month to talk on toxoid, June for a talk on the care of milk during hot weather. In August one might talk on getting the child ready for school et cetera. Under no circumstances should a member be permitted to speak upon controversial subjects nor concerning quacks or cults.

The length of most talks should be short. Most people use their radio for entertainment and not for information and it has been my observation that when some one begins to talk over the radio some one within hearing tunes in another station. If the speaker has a crisp catchy delivery they may listen for ten minutes but if his delivery is poor he is tuned out almost immediately. The morning hours are probably best for the longer talks. The manager of our local station believes that five minutes is long enough for health talks and that better results could be obtained from two five minute talks during the week than from one fifteen minute talk. In this I agree.

In Jackson we have been rotating the speakers alphabetically. This has certain advantages in that the audience hears a different voice each week and tries to determine who is speaking. We do not announce the speaker's name. The audience likes to know who is speaking and, when we started, a number of inquiries would come in each morning of the broadcast asking the name of the speaker. In order to keep any ill feeling from developing within the society we refrained from using any names—merely stating a member of the Jackson County Medical Society would speak on a certain subject. In our experience the health talk presented in dialogue—question and answer—is better received than a monologue. This is partly due I think to the fact it is delivered more in a conversational tone.

Another important detail of radio health programs is the handling of inquiries. These usually come from those who are ill or from those who have sickness in the family. Talks given on cancer, arthritis or any disease which is more or less common and chronic in nature will give rise to some inquiries. These should be handled by the committee promptly and in the name of the society. For one can hardly justify leaving the name of the speaker unannounced and signing the letters by name. If the inquiries are to be answered over the radio great care must be exercised. One may not say that it is a subject which can be dealt with satisfactorily only by an interview with your physician, as the audience will soon gain the impression that the programs are conducted only for the purpose of sending patients to doctors. On the other hand one can not tell them to go down to the corner drug store and buy something or other and take it three times a day before meals. Manifestly that will not do. It is better to tell them something of the nature of the disease from which they think they are suffering and of the relation of scientific medicine. This offers a splendid opportunity to correct the widespread impression that diagnoses can be made and proper treatment instituted without a careful physical examination.

Unfortunately most physicians have had little experience in speaking before the microphone and this may give rise to some embarrassment to the society putting on the radio program. The committee having charge of the radio work should see that the paper to be read is in the hands of the reader several days before it is to be delivered over the radio and the reader should be urged to read it over several times aloud. I emphasize the necessity of reading it aloud for there is not only the necessity of being able to pronounce the words properly but

the speaker must also be able to read and breathe at the same time. Not uncommonly a novice may find himself out of breath before finishing the first paragraph.

There is one other phase of radio broadcasting which I think merits consideration and that is the possibility of producing a group of neurasthenics out of those who listen to our talks. Not long ago I heard a man say that he never hears the symptoms of any disease enumerated but that he felt he had the disease himself and wondered what he should do about it.

It is always hard to judge the results from an educational standpoint of radio health talks. The manager of our local station, WIBM, some time ago sent out a large number of letters asking those receiving the cards which were enclosed, to inform him whether they tuned in regularly each morning for our programs. It was surprising to note that over 4,800 of these cards were returned and 88 per cent stated they tuned in each morning for some program given over our local station. If there were only two listening at each radio there would then be an audience of at least 9,000 from this group alone and obviously a great many must tune in who did not receive cards or trouble to return them.

When we began broadcasting, a number of doctors were asked to observe while making their morning calls the proportion of homes in which the radio was tuned in on WIBM. Fourteen doctors reported. The average from these observations indicated that 58 per cent were tuned in on our local station. It will be seen that we have an enormously large invisible audience each time we appear before the radio and the weekly repetition of health talks can not help but have considerable influence and although the results may be intangible I feel the effort is well warranted.

Chairman Foster: It might be well now for you to provide Dr. Corbus and the Council with an expression of opinion relative to the advisability of holding a special session of the House of Delegates.

Dr. Corbus: We would like to have a full expression. You know the financial situation. I have told you something about the fact-finding committee. It is a tremendous job. They will be able to present to you from time to time some of the findings that they have made, for your discussion. Along in March those findings should go out. The suggestion is made that regional meetings of Delegates be held under the Councilor of that District, at which time members of the Council shall appear before those groups and discuss the matter with them, to the end that each delegate may have before he comes to the annual meeting, an idea of what his attitude and the attitude of his District will be in the situation as it arises.

We realize very fully, more fully than you do, perhaps, that in a discussion of economics each region is quite a unit. Problems which come up in Detroit and problems which come up in Grand Rapids are not problems which will appear in the Upper Peninsula or the smaller communities, in Muskegon or Lansing or Jackson.

Dr. W. C. Ellet (Berrien): I don't know how many of this gathering belong to the House of Delegates. I think if Dr. Corbus explained just what this meeting is for they might be able to address themselves a little more intelligently to the subject.

Dr. Corbus: The special meeting is for the express purpose of hearing, discussing and acting on the report of the survey committee.

Dr. W. B. Newton (Alpena): I should like to have clarified this matter of the regional meetings of the Delegates. Will those regional meetings embrace the practitioners in those different regions, or is this purely a proposition of the House of Delegates? How is it going to be brought to me, not a member of the House of Delegates, just what the attitude of this committee is other than by publication?

Dr. Warnshuis: It is not the intention to have the meeting confined to the delegates of your District, but of all the doctors of your District, who will gather together and express to your delegates the opinion of the District, which they may in turn transmit when the House of Delegates meets as a body.

Dr. Newton: After all, the delegates are only acting as representatives of the profession over the state. I think the closer this thing can be brought to the average man in the rank and file of the profession, the more he can be enlightened on the proposition, the better enabled he will be to form an opinion and to express that opinion to his delegate from his region to the State Medical Society. From what I have heard here, and after a very brief talk with Dr. Robb on the subject, I think the more we study this proposition before we take any action the better off we will be.

You will recall there was an immense hubbub immediately the report of the Committee on the Costs of Medical Care was released. That is settling down to its proper level as time goes on, and I think a report from this committee issued right off the bat would have somewhat the same effect as the report of the Committee on the Costs of Medical Care. If there were time to study it and think it over and sift it down, I am inclined to think we could reach a wiser conclusion as to the best method to pursue. I think the plan of the regional meetings where this can be brought directly to the men in the District by someone who is able to present it to them will give them a better chance to devote intelligent thought to this thing; after all, these propositions are things that need thought. We are jumping to too many hasty conclusions.

Chairman Foster: It seems we probably could crystallize this a lot faster if all those in favor of regional meetings, with an expression of opinion at that time, as explained by Dr. Corbus, would indicate by raising their hands.

Dr. E. C. Baumgarten (Wayne): I wonder whether this is a mandate of the House of Delegates, and what the parliamentary procedure would be for calling it off.

Dr. Corbus: The Council is directed by the House of Delegates to call this meeting. I presume that we will find in our Constitution an au-

thorization for calling it off under the rule that we may act in the absence of the House of Delegates. Nevertheless, the Council, even if we find in our Constitution a place which would permit us to take action, would be very loath to do so except as we found an expression throughout the state on the part of Delegates or on the part of the signers to the petition which favored it. This was not an action of the House of Delegates, but was an action by petition under our Constitution for the calling of such a meeting. In the past we have heard objections, partienlarly from out in the state, against calling such a meeting, and because we as a Counеil feel that it is a bit premature we are trying simply to get an expression of opinion. This body, of course, except as it presumably expresses the opinion of its eounty societies, has no authority. Mr. Secretary, what about the power of the Council?

Dr. Warnshuis: The Constitution provides that there shall be a special meeting of the House of Delegates upon a petition presented to the Council. It is within the power and option of the Council to designate the time and place for the holding of that special meeting.

Dr. Ellet: I think we will get into a kind of mess if we take it upon ourselves to express an opinion as to whether we are in favor of holding this meeting. I understand that it is mandatory that it be held. I feel that while probably the meeting won't aecomplish much, on the other hand there will be a good many members of the House of Delegates who will feel, if it is not held, that this is not their society, and sinee it is their money they are voting on spending we should allow the thing to carry through. We should show them, in a way, that it is not necessary, but I don't believe this organization should take it upon itself to make any vote at all. It is up to the Counеil if they wish to do it, and I am afraid we would get in wrong if we went back to our societies and expressed ourselves as opposed, and the House of Delegates would feel we had no business to do so. There is quite a difference of opinion in the House of Delegates anyway, and I think it best that we do not vote on this at all.

Dr. Corbus: I should be quite agreeable to that. All we are trying to do is to get an expression of opinion from individual men representing the groups of which they are secretaries.

Dr. Christian: Since Dr. Baker and I are members of the committee, I think we could help the Council and give them moral support if we would say the individual members of this committee have not received the data they were supposed to have been given. I am sure that if this mass of information were given to me today I would not be able to render an intelligent interpretation of it to that meeting in March. The individual member is not quite sure where he is on the subject. We have had no information for a long while.

Dr. Baker: I think we had our last meeting of the committee in December. Sinee that time I have received no information of any kind.

Chairman Foster: In view of the fact that the Council has asked us as a body of Secretaries for at least an expression of personal opinion, and since we are not a legally constituted body I can see no harm in our giving that opinion. May we have a showing of hands of those in favor of regional meetings? Those opposed. (Majority in favor; two votes opposed.)

DISCUSSION

Chairman Foster: We have at our disposal now some time for discussion of the papers presented and the problems of the County Societies. Our Secretary and those of our number who are qualified are willing and ready to answer any questions.

Dr. J. F. Carrow (Tri-County): Referring to the paper on Contracts for Indigent Care, I eannot see that there were any real concrete ideas that the Secretaries could take back to their home soeieties as to the nature of the contraet and the general conditions. There are indigents and indigents and still more indigents, and they are growing. The question arises, who are the indigents and who pronounces them such if you have contraets?

I think that Wexford County is one of the pioneer contract counties; it has had a contract for a number of years. There are a great many points that it is worthwhile for the other societies to know if they are going to enter into contracts. In the first place, we found it quite nccessary to designate who should say who were indigents and who were not. We had a contract for a number of years, which expired last January, and we were able to renew it on a more equitable basis. That contract had been written by the prosecuting attorney, who is very biased and prejudieed against the best interests of the physicians. I have been able largely to write the new contract myself.

Dr. Le Fevre brought up the question of supervisors. We got into the contraet that since the State Board of Health has designated venereal diseascs as contagious diseases, there is special pay for any medieine used in venereal diseases. One other feature that I suceeeded in getting written into the contract met with a little objeetion before the board of supervisors. It is incorporated into the contract that while the county hospitalizes the patient at its expense, this shall not bar the physician from entering into a private agreement at any time in the future when this patient may be able to pay the doctor for his services. We may have a private agreemcnt with the patient that when he gets a job he still owes us.

If you are going to enter into a contract, there are many features of that kind that it is well for you to have your eyes and ears open for. Don't let the proseeuting attorney get away with features in the contraet that are prejudiced against the interests of the physicians.

Above this, sell your personality to your supervisors or county offieials so you can get these things over. If you go at it in a pleasant, agreeable way and talk it over man to man you can get by better than if you attempt to tell them where to head in. We had a eontract committee that fell down on the job and were hung up for six months before we got a new contract in our county, just because the members of the committee put it up to the supervisors the wrong way; they sort of intimated to them that their judgment of the supervisors wasn't as high as they thought it should be. The result was that we had to sit down and talk it over and get those things smoothed out.

As to the selection of the doctor by the patient, I don't think that is practiced in the majority of cases.

Some counties have a contract written on a percentage basis or a reduction in the regular fees, but I believe the majority of the boards of supervisors would like to know from year to year what they have to pay. In our county it is a lump sum and is paid to the Secretary of the County Society and is divided pro rata. In the city of Cadillac there were six of us, but the Grim Reaper has been quite busy and we have been reduced to four. The outside work is prorated on the school census basis. We have one doctor who draws only $54 every three months for his service, while another draws $131. The city is divided pro rata among those who do the work and they are given no choice in the matter, except that by the plan of rotation they can

wait until I, for instance, get off and the other fellow gets on, in case they have an operation that can be put off until then. To a certain extent we are on the job the year round. If we start on a case of surgery we see it through, even if it laps over into the other man's time.

The Secretary handles the money. Every three months when we receive our check from the supervisors, we take out enough to pay our dues, to pay for our suppers, and sometimes special refreshments at other dinners and flowers for our sick and departed brothers. It works out very satisfactorily.

If you ever enter into any contract with the board of supervisors, remember that the legal profession does not feel as kindly toward the medical profession as it might, so put as good a business man as you can on your contract committee and then scrutinize the contract for loopholes before you sign it.

As for the people who get on the contract service, we have periods of probation of six months after a new man comes into the community before he can be taken into the society, then he gets onto our hospital staff, and so on, and we don't let any new man in until the contract is renewed. The present contract is for two years. The one before that ran for five years. A man who came in toward the expiration of the contract who was in good standing in the society got on the contract and participated in its benefits, while some men who came in shortly after the contract was signed were out of luck for five years. I don't know whether that is fair or not. Those things you can work out in your own organizations.

At the present time it is advisable to have some sort of understanding as to who the indigents are and where your pay is coming from. Get as much as you possibly can. My experience is that it is very difficult to get an adequate compensation for the work that you will have to do from the boards of supervisors, because they are composed largely in the average county of people from rural districts, and the doctor's $2 for a call or $25 for a confinement case looks like big money to them, but at that it is better than going out and doing the work with no hope of collecting from anyone else but the patient, because the majority of them haven't any money.

Dr. J. L. Burkart (Mecosta-Osceola): Under the subject of Contracts for Indigent Care, I don't know whether you are aware that a bill has been introduced by the representative from our district which will take away from the judge of probate his present status. I might say in preface to all this that we have an ideal contract with the board of supervisors. The judge of probate of our county, acting under the provisions of Act 267 of the Acts of 1915, which is an act to take care of all pregnant women and indigents by sending them to the University of Michigan Hospital, has asked the medical society to take up this matter since the board of supervisors have concluded that the cost of sending them to these institutions is greater than the cost would be otherwise. If any of you are familiar with that section of the law, you remember that it says that after investigation, etc., of indigents, the judge of probate may commit, for medical care and surgical care, such individuals, etc., to the Hospital of the University of Michigan. The claim was that the law was not mandatory, for the simple reason that the word "may" was there instead of "shall," but the provision "University Hospital" did make it mandatory; consequently a bill has been introduced which would take away that construction of that particular paragraph, and it would read thus: "And the judge of probate may in his discretion send to the University of Michigan Hospital or any other hospital on the accredited list of the American Medical Association in the State of Michigan," etc.

If that bill passes it will give the board of supervisors the privilege of sending the patient who ordinarily now must go to the University of Michigan Hospital, to any hospital. I think that is an ideal method for more reasons than the one that it does reduce the cost.

Dr. Harry B. Knapp, Battle Creek, read a discussion of the "Battle Creek Plan for Medical Care of the Indigent."

THE BATTLE CREEK PLAN FOR MEDICAL CARE OF THE INDIGENT: THE ACADEMY OF MEDICINE AND DENTISTRY

HARRY B. KNAPP
BATTLE CREEK, MICHIGAN

The age old traditions and ethics of the medical profession are not easily adaptable to any form of bargaining. The basis of competition among doctors should not be the mere matter of price. In the medical profession the quality of service is the guiding force because the service has to do with human life, upon which there can be no price affixed.

Theoretically the ideals of the profession cannot be fully met by individual doctors signing agreements to furnish medical service to public or private welfare agencies, to industries, or to private individuals, on a flat sum basis. The bargaining should be made with the medical societies whose members reside in the area served. The principle of the free choice of physician can only be maintained by the collective bargaining plan which includes all physicians as a group. With this in mind the Calhoun County Medical Society undertook to devise a plan by which it could contract to serve responsible governmental units in providing medical care to indigents upon a contract basis.

During 1932 in Calhoun County there was tried out the plan of hiring a full time physician to care for the indigent cases of the city of Battle Creek and neighboring townships. A doctor was imported for that purpose. On account of the volume of work, no matter how well trained the doctor, it was impossible for him to fulfill all the requirements and demands made upon him. It was soon discovered that he could not, in addition to being an internist, fill the shoes of a surgeon, an orthopedist and obstetrician, a pediatrician and eye, ear, nose and throat specialist, etc. As a result the economy of hiring a one-man county or city doctor did not meet expectations, for the County was obliged to pay for help from various specialists employed to meet the demands of the occasion. The total cost of furnishing medical care to the indigent was, in aggregate, as much or more than it had been in other years when the service was more or less distributed among the local physicians. Many of the sick poor did not take kindly to being served by a strange doctor, but continued to call upon the old family doctor, who responded in most instances but with no hope of obtaining pay for his services. With a recent enactment of the Legislature, relief to the indigents has become a problem for each city and township instead of the county as a whole. Confronted with this situation the City of Battle Creek was open to suggestions as to the most efficient method of caring for its indigent sick. Accordingly forty-five members of the Calhoun Medical Society and twenty-seven dentists, members of the American Dental Society, all residing in Battle Creek, formed the Battle Creek Academy of Medicine and Dentistry, a non-profit organization.

It drew up its own By-Laws, elected its own officers, became incorporated under the laws of the state, and is prepared to function as a relief agency in this time of stress and stringency. It is a strictly non-profit Medical service, and is offered with definite limitations, to the indigent residents of Battle Creek and certain environs. While sponsored by the members of the Medical and Dental Societies, its terms are binding only upon those of its members in active practice who subscribe to its operation.

AIMS

The Academy of Medicine and Dentistry is devised to fulfill certain definite objectives and ideals; among them are the following:

1. To preserve to the private practice of medicine and dentistry its individualism, its ineentive to scientific excellence, its reward for that excellence: the free choice of physician or dentist to remain with the patient, and to see that the emoluments for service are equitably distributed.
2. To provide the sick poor in the present emergency with the same quality of service and tender care as can be had upon the usual fee-for-service basis.
3. To encourage the free use of consultation service in special or obscure cases.
4. To return the practice of medicine and dentistry to the local doctors and dentists where it rightfully belongs.
5. To forestall or replace various systems of medical care established for profit through lay or contract practice.
6. To provide a means whereby temporarily financially embarrassed sick people may call upon their own family doctor without being humiliated.
7. To promote disease prevention by the process of public education, and by the exchange of ideas upon the latest scientific methods of treatment.
8. To restore the confidence of the patient in the high ideals and purposes of organized medicine.
9. To endeavor to prevent the financial embarrassment of large numbers of citizens from developing into chronic pauperism.

SOCIAL WORKER

The Academy of Medicine and Dentistry employs at its own expense an experienced social worker and former county nurse, who, together with the city appointed Director of Relief, serve the interests of both doctors, dentists and the city in determining the worthiness of each case. The plan is carried out as follows:

Each member of the Academy who has an office or house call from a family or individual who appears to be unable to pay for service or who already is receiving fuel, food or rent from the city, would at once render first aid with no questions as to forthcoming pay. He at once makes his report on a special notification card, to the Academy headquarters, and the visiting nurse, together with the relief director employed by the city, investigate, and if found worthy, the doctor continues to give medical care until the patient recovers. If found unworthy of public relief the doctor would treat the case as any other private patient. At the end of the month he sends an itemized statement to the Auditing Committee of the Academy. This bill for service is rendered at the usual prices for such service in this city.

The Auditing Committee pass on all bills rendered by the members, and satisfy themselves that the bills represent claims for actual services rendered. All approved bills each month are ordered paid by the Treasurer, but are pro-rated for payment after deducting the overhead expense of the Academy.

At the outset in order to deal intelligently with the subject of medical care in Battle Creek, the first undertaking was to obtain the facts and figures as to the volume of medical work done in other years, as well as the aggregate costs of such care. Through the coöperation of county officials these figures were made available and were used as a basis for an estimate for future service. Based upon these findings a contract was entered into with the City of Battle Creek to furnish medical and surgical care to the indigent sick for the year of 1933 for the sum of $12,000. This contract does not include hospitalization expense, nursing, or such unusual drugs as insulin, salvarsan, vaccines, or medicines not usually carried by the general practitioner in the ordinary pursuit of his practice. These items are paid by the city. The contract for dental care was made separately for the sum of $900, which was to cover those measures necessary for relief of pain and the eradication of contagion and such additional measures, other than permanent restorative dentistry, as may be deemed necessary in the successful treatment of disease or injuries.

The Academy of Medicine and Dentistry is the result of an effort on the part of the medical and dental professions of Battle Creek to extend to the limit their professional coöperation in the present emergency. It is also an effort to forestall state medicine by answering the question as to whether these professions can submerge their own interests in behalf of the health of the indigent public.

While the Academy is now in actual operation, it is yet too soon to say how perfectly it will function. It doubtless has many weaknesses, but it is expected that these will be corrected as soon as they appear. The number of cases passed by the investigating committee during its first month of existence suggests that a huge epidemic is raging. However, this apparent rush of business is explainable on the ground that all those registering at the City welfare headquarters are given carte blanche service by the Academy members in case of sickness. After a few months, or possibly by the end of the year, it will be possible to pass judgment on how well the academy fulfills its mission. Careful records of cases by the Social Worker, and systematic accounting of its funds, are being kept by an expert accountant, and, as the experiment unfolds, one may hope for a wealth of facts upon which to guide in other experiments of this kind.

Battle Creek is a city of 50,000 population, and has forty-five physicians and twenty-seven dentists in active practice, who are members of the Academy.

Dr. Knapp: During the month of January we had some $4,600 worth of bills and we had less than $1,000 with which to pay them. We have a contract with one or two of the surrounding towns, from one of which we get $100 and from another $75, I think. We paid 20 cents on the dollar during January. We are checking on this thing because we want to know what the indigent costs in our country are going to be. We never were able to get accurate figures on it. We are paying an accountant to run the accounts of the association, and in another year we will be able to stand our ground and tell the supervisors or city commission what sort of contract we are willing to make with them. At the present time we are not kicking. A $3 call we make for 60 cents, but this is going to give us some facts on which to base future work.

Dr. Baker: I don't know whether I would be imposing upon this group to say anything more regarding the matter. Apparently this is a very vital question and is receiving a great deal of attention. Ingham County, of course, has an exceptional group

of men. They have been very enthusiastic and they have shown a great deal of leadership.

The handling of any kind of a contract for indigent care rests merely on the ability of your medical group to sell it. If you are good salesmen you can sell the proposition to any governmental group.

The point brought up by my friend from Muskegon about the suspicion in the board of supervisors resting upon the medical profession is one that we should not pay very much attention to, I believe, except in this respect, that if there is any suspicion at all it certainly is an indictment of the medical profession in their ability to put over a job.

There are two welfare acts, one of which makes it mandatory that the probate judge send his cases to the University of Michigan Hospital, and the other act says he may. The first one, Act 274 of the Public Acts of 1913, or the Afflicted Child Act, makes it mandatory that the child go to the University of Michigan Hospital, but that is purely a state charge and has nothing to do with he proposition we have in mind. The other act, 315, I think, is one where the supervisor or the probate judge may leave those patients to be taken care of by the local community if he wishes.

I think it can be demonstrated easily in any county that these patients can be taken care of much more cheaply than at the University Hospital.

I was rather surprised that no discussion of the clinics as such was given. Apparently I was all wet. Perhaps I sounded something that did not meet with your approval at all or you don't care to discuss it, but I think that is an item of utmost importance in the community, particularly in the larger communities, and that attention should be given to it.

You might be interested in knowing what our set-up was in Oakland County. Perhaps if I read you some of the items of our contract and give you a little history of what our society did, it may clear up some of the difficulties in your minds.

First let me state that Oakland County has probably the greatest number of indigents per population of any county in the state. I may be overstating, but we have a great many of them. In the city of Pontiac alone we have around 2,400 families, or nearly 9,500 people, on the welfare list. In the southern part of the county we have practically that many more. That is a big problem, and the problem is not getting any smaller. We are beginning to wonder in Oakland County how soon our practice is going to be all welfare work and no more private work.

As the doctor from Calhoun County has just said, we had no way of arriving at the cost of welfare work in our city. The figures are not accurate in any respect, but as nearly as we could figure it, it amounted to around $5,000 a month that the physicians in Pontiac were doing free. That was besides the work that the county physician was doing and the city physician was doing. That may give you some idea of how much work a city physician can accomplish.

We had prepared a proposition for the county, and after some little time the board of supervisors managed to split the welfare work, going back to the old system of township, village, and city welfare units. That left us up in the air and we had to do our work over, we had to rearrange our plans and meet with the city group, our commission .

Pontiac has been getting a lot of adverse publicity throughout the past two or three years. Our city has been in a turmoil politically, and though I hate to say it, pretty much the same condition prevails in Pontiac now as prevailed in Tennessee at the time of the Scopes trial. I need say no more. We have a very difficult group to deal with, and yet when we started, while we had to argue and sell our proposition, and sell hard, we did sell it.

At our first meeting with the commission when we presented them with this basis of contract practice cost, $3 per family, that is total care including obstetries and surgery, they sat down with their pencils and tried to figure out just how much it would cost the city if they offered us $2 per family, and we had to tell them no, we didn't want that much money. Then they decided on $1.50 and we had to stop them again. The finally concluded that $1 would be about right. We let the matter rest there. Mind you, we had 2,400 families in the city of Pontiac. They were willing to pay us $2,400 a month for the indigent care. That matter rested for several days until one missing member of the commission could meet with them. During that period a lot of self-appointed ambassadors amongst the medical profession put a monkey-wrench in the works, as it were, and at the next meeting we had with the city commission, which was two weeks later, they made an offer to us of 35 cents per member. We had our job to do over. We had to get rather disagreeable with them. We told them, finally, that we would no longer consider the matter at all, that if they wished to hire ten city physicians to take care of it, go ahead and do it, we would throw all the welfare work on their doorstep. Of course they didn't like it. They knew what they were up against; they sensed that no ten doctors could begin to take care of this vast multitude of people and do it properly because they wouldn't have the facilities of the men who were doing surgery and the men who were doing the special work required. Before we got through with them they began to talk, and we bargained. It reminded me very much of David Harum and his horse trading proclivities. We sat on each side of the table and just swapped. They would make a proposition and we would turn it down; we would make a proposition and they would turn it down. It wasn't long before we had the ante raised a little bit and we were encouraged. We met at five, and by nine o'clock that night we had an agreement. I will read the agreement.

"This agreement, made and entered into by and between the Pontiac Medical Society, an organization made up of members who are practicing physicians and surgeons licensed under the laws of the State of Michigan, hereinafter called First Party, and the City of Pontiac, a municipal corporation, hereinafter called Second Party, is as follows:

"1. The first party covenants and agrees that it will furnish medical, surgical and obstetrical services to all families living in the City of Pontiac who have been placed by the city officials upon the indigent list for a period of three months beginning as of February 15, 1933, for the sum of seventy cents ($.70) per family per month (single men and single women shall be considered as separate families), subject to the terms and conditions hereinafter appearing.

"2. The second party hereby employs the first party and agrees to furnish to the first party when authorized by the City Physician, hospitalization and laboratory work, major dressing, biological products, insulin, ventriculin and liver extract for all indigent cases.

"3. It is further agreed that settlements shall be made by the second party with the first party on the first day of each calendar month for the work done the preceding monthly period, based upon the average number of families on the indigent list during the said preceding period.

"4. It is further mutually agreed that the first party will accept one-half of the total amount of money coming due to it in tax warrants issued by the City of Pontiac, Michigan. The remaining half to be paid in cash.

"5. The City Physician is charged with the duty of seeing:

"(a) That the city's covenants herein contained are fulfilled, and

"(b) That there is an equitable distribution of the work among the members of the first party.

"6. The second party further agrees to furnish the first party with a list of names and addresses of all indigents, and to keep the said list accurate, and to furnish each indigent family with a card which they shall in turn present to the member of the first party at the time medical service is wanted."

The set-up has already been outlined to you practically entirely as it is in the Calhoun County set-up, except that we have not taken in the dental profession, which I think we should have done.

Dr. Baumgarten: What I have to say is largely in the way of a very brief announcement. As most of you know, in Detroit the Wayne County Medical Society and the Department of Health for some time have been working out in a rather successful manner a method of medical participation in public health work. This has been worked out particularly in the matter of immunization in diphtheria. Immunization is given at the expense of the Department of Health at so much per injection. This plan at the present time is being extended in a very limited way over a certain area in the city to venereal disease. This is not prophylaxis; in this particular instance of venereal disease it becomes a matter of treatment. It is being experimented with at the present time over a certain limited area. It seems that the thing may work out fairly well.

At the beginning of the year Dr. Robb appointed a special committee, a Committee on Preventive Medicine. Dr. L. O. Geib, President of the Department of Health of the City of Detroit at the present time, is also chairman of this committee. He, together with Dr. Vaughan, who is the Commissioner of Health, who is not a member of this committee but is coöperating with it, have gotten up a very nice demonstration and talk with charts, and I believe they are also contemplating some movies at the present time for demonstration to the other societies. This committee asked me to make this announcement to the Secretaries today. The committee is very anxious to contact the Secretaries or officials of the County Societies throughout the state and will at their request send a speaker to the various County Societies who are demonstrating the method that is being worked out in Detroit. They solicit your invitations. So far as the matter of expense of the speaker is concerned, I am not authorized to say.

Question: How many counties have some form of county plan now?

Dr. Warnshuis: Thirteen that have been reported.

Dr. Lloyd L. Savage (Tuscola): There is one thing that has been ignored thus far, I think, and that is the patient's relations, as far as economics are concerned, with the doctor. In Tuscola County we don't recognize the indigent patient as such. We have patients who are not strictly indigent who don't pay, but we don't consider them indigent. We consider that we have a right to make a charge to every patient that we take care of, and we go ahead and render them just the service that we would render any other patient.

In our county plan we do not take into consideration any patient sent to us by a supervisor or commissioner. That patient is instructed to go to his own doctor and make his own arrangements. That places a little responsibility on the patient, and that responsibility saves a lot of extra work. We don't press them for collections any more than they can stand. We feel that it is impossible and economically unsound to try to lift up any element of the population; they should stand on their own feet. That is the American principle.

Question: How do you get your pay?

Dr. Savage: We get paid the same as any of the other people are paid. We recognize one important feature, and that is the right to charge every patient who comes into our office.

Dr. Warnshuis: There is another feature regarding Tuscola County that might be passed along to the other societies who have contracts, and that is that members of the County Society who do not attend the county meeting are fined $5 for their absence unless they can prove they are on legitimate professional business. They have good attendance.

Dr. Knapp: As a means of trying to keep indigents from developing or to prevent them from becoming chronic, we are arranging a plan by which each patient signs a note and agreement to pay back to the city any money that is paid out in his behalf for fuel or medical care, at some future time when and if he ever gets a job. That is one of the best things you can do to prevent people from taking advantage of welfare agencies, especially of doctors. Our Society attorney is preparing a note now with an agreement with the future employer to deduct so much a month, 10 per cent, say, from the man's earnings when he gets a job. That really means that he simply is being loaned this service. It makes people feel a lot better, and they do not take advantage of you and call you when it is not necessary.

Dr. Ernest C. Hansen (Manistee-Lake): Manistee is one of the small counties of the state. Last November we formulated a plan for the supervisors. We get paid a lump sum for each patient that is hospitalized, $50 for all medical patients that are put into the hospital and $60 for all surgical patients, $10 more for the anesthetic. The patients are declared indigent by the probate court, and before any patient is hospitalized we appoint one of the members of the Society to investigate him for the doctors. Following that he can choose his own physician and go to the hospital, and each month this medical representative of the doctors receives his pay and it is paid into the medical society.

We also have an arrangement whereby outpatients or patients that are not hospitalized are paid for according to our regular fee schedule at 25 per cent reduction.

The plan so far is working out very well. We had great difficulty trying to get the board of supervisors to send the patients to the local hospital instead of to Ann Arbor, but the local hospital was in a very bad situation, in debt a great deal and about to close, so the various social committees around the town brought pressure to bear on the supervisors and the plan is now carried out, I think, at a cost of $88 a patient, whereas if they went to Ann Arbor it would be something like $108 per patient.

Dr. D. W. Fenton (Hillsdale): I should like to know in how many of these thirteen counties the contract applies to the county and in how many to the city separately.

Dr. Warnshuis: That I cannot tell you, but we do have in our office a copy of the contracts that these various counties have either with their supervisors or the city. They are available to any County Society that desires to write in; it will enable them to judge the type of contract they want to make in their particular county.

Dr. Baumgarten: There has been a lot said about keeping the indigent patients at home. I wonder if any county society has taken action to keep its patients at home. I am speaking particularly of those that are being referred by physicians in the county. That is a serious problem. Most of you think possibly it doesn't exist to any great extent, but it does. It is coming up in Wayne County very actively at the present time. If anybody has done anything about that I should like to hear about it.

Dr. Warnshuis: That is going to be answered by the subcommittee of the Committee on the Cost of Medical Care and Services in Michigan.

Dr. E. M. Highfield (Gratiot-Isabella-Clare): I should like to ask if there has been any effort to change the Crippled Children's Act so that the probate judge has authority to have them cared for at home. While someone said that is paid out of the state, we are interested in economy and we ought all to be taken care of at home.

Dr. Warnshuis: There are two bills in the legislature now dealing with those amendments, and they are before the Public Health Committee of the legislature. Our Legislative Committee is well acquainted with the situation. I think there will be a hearing in the very near future.

Dr. R. J. Hubbell (Kalamazoo-Van Buren-Allegan): It was urged by one of the early speakers that we try to obtain all the members we can. It was not meant that we should in any way lower our standards for new members. In Kalamazoo we require a man to be in residence one year before he is accepted to membership. We recently passed that requirement and I think it is a good thing.

One thing that I think has not been discussed here is the individual contract practice. We are troubled with that somewhat in Kalamazoo, and I imagine you are in other communities, where a man who accepts contract practice with mills or factories of different kinds actually outbids or underbids more work for a lump sum than all the other men in the community. Suppose he is not a member of the society. Should we invite that man into the society with a view to lifting him up to our level and getting him to prove himself, or is that possible? I think the attitude of the speaker was that we would be improving the man rather than lowering the standards of the society.

It was suggested by one of our men that we might as a unit go to the hospitals and say: "We don't want anybody who practices contract practice to practice in the hospital and if you allow anybody to do that we will withdraw as a body from the hospital."

Dr. Warnshuis: The Constitution and By-laws of the American Medical Association and also of our State Society provide that the County Society is the only door of admittance to the County Society, the State Society and the American Medical Association, and that the County Society therefore shall be the appraiser and the judge of who is or who is not eligible to the County Society membership. I do not think Dr. LeFevre meant to convey the impression that we should lower the standards. The desire is that in view of the pressing emergency and the need for an organized, united front, we should secure as members of our Society all the eligible men in the vicinity or in the county.

Some of our County Societies require a man to be a resident and a practitioner for one year; some of them, for example, Bay County, require also that he be a citizen of the United States before he can become a member, with full papers. Some County Societies make the period of probation six months, others make it only three months, and some of them take members in just as soon as they come. That is a matter that is entirely up to the local profession and the County Society.

With regard to the man who violates the ethics of the profession, in particular as to contract practice, shall he be admitted to membership, shall you try to labor with him and convert him from his sin? The Judicial Council of the American Medical Association has rendered an opinion and a statement as to contract practice. There are certain communities—we mentioned particularly some of the coal mines in Virginia or the copper mines in the Upper Peninsula—where the practice can only be taken care of in a contract manner. In other communities like Kalamazoo or Detroit, such things are unheard of and would be unethical. If Dr. Hubbell will drop me a line I will be very glad to send him the ruling of the Judicial Council to guide him and his County Society in dealing with a man of this type. I would say that it is up to you, Doctor, whether after observing the type of man you have to deal with you want to convert him or condemn him to utter darkness.

Chairman Foster: If there are no more questions we will adjourn this session.

The meeting adjourned at 5:15 p. m.

TUESDAY EVENING DINNER

February 28, 1933

Dr. B. R. Corbus (Chairman of the Council): We are wonderfully honored tonight in having Dr. Olin West, Secretary of the American Medical Association, our President and our President-elect with us. It is seldom that we have been so honored, and we appreciate it.

Some time ago I wrote that this was a time when men who are our natural leaders by virtue of their ability and those men in our Society who by virtue of office are perforce looked upon as leaders should put their minds together in the effort to help us to chart our course in this period of great disturbance, when changes in medicine seem bound to come, changes which will break down our traditions, and that we must have our finger in the pie in these changes if we are to exist, if medicine is to continue to be the highly honored profession that it has been in the past, and not a commercialized institution.

This was commented upon by me today, and I was a bit fearful that you might perhaps interpret what I said in a way that it was not intended. I said to Dr. West this evening that the tenseness in the air was not unlike the tenseness during the early part of the war at similar meetings, but that there was this difference, that someone higher up had shown us our obligations and that we were prepared to fulfill them so far as we could, that there was an apparent lack of leadership now and that lack of leadership was not limited to the medical profession, but was found in business, in finance, and in politics, that it was more than at any other time our group obligation to help to work out this situation as best we could. So we have given up these meetings to a study of economic problems in the State Society, as has also been done in the American Medical Association. I do not want to

give the idea that leaders of the profession have not been attempting to help us to chart our course, and I think if we look to anybody in the American Medical Association to help us in this period of time, to one man more than another, we look to Dr. West. We are glad to have him here and we are expecting to have him give us a talk which will be extremely helpful to us.

I am now going to ask our President to talk to us on Health Insurance and Contract Practice. Dr. Robb.

HEALTH INSURANCE AND CONTRACT PRACTICE

Dr. J. Milton Robb: I was delighted this afternoon to see the enthusiasm and the thought that was used by the local County Societies in their efforts to solve their problems. The fact still remains that they must deal with the solution of these difficult problems in their own way in their own communities, and that there is no way I know of by which it is possible to develop reservoirs of strength by pooling our shortcomings, there is no way in which as President of the Society or as Secretary of the American Medical Association we can by gathering in weaknesses in the local organization develop strength in the central one, so it is your obligation and I see that you are assuming it. I repeat to you how pleased I was, because as I view the situation there is absolutely no way that the problems in Detroit can be solved by the men in Tuscola and we in Wayne are not able to give you much help in some of the more sparsely settled districts.

I must admit that I think we are in a turmoil and that it is difficult at times to tell what move to make. Sometimes at night I feel like the mystic bird of Australia that flies backward instead of forward, because it doesn't know where it is going but it would like to know where it has been, and when the day has finished and I look back over the problems that have been presented to me it is in a manner of review.

The subject given to me tonight is Contract Practice, a most difficult one to handle, and I feel that it would be rather futile for me to try to write a paper on this problem, because if you have kept in touch with the writings of the American Medical Association in its Bulletins, I don't believe I could possibly state the problem as succinctly, as clearly and as carefully as they have done. However, there are some things that perhaps in my contacts in Wayne and again in the state may have given me some ideas that would be of practical value to you men.

The Judicial Council of the American Medical Association defines contract practice by the term "Contract practice as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or clinic or class of individuals for a definite sum or for a fixed rate per capita."

That is sort of like a woman's mother hubbard, it covers everything and touches nothing, but it is all that anybody could do with the problem, as I see it, because like many things that confront us in life the moral background of the people who handle it changes its definition.

In the handling of contract practice we must use, as practitioners of medicine, the Golden Rule, good manners, ethics, and the rules governing the eternal fitness of things. If those things form the background of the individuals who are conducting contract practice, the different sides that go to make it up, the employer, the insurance company and the doctor, we probably will not have much trouble with it. It is similar to what sometimes has been said about womankind —we apparently cannot get along with them and we cannot get along without them. That is one of the things that the Lord has sent to try us.

In 1907 when I was a junior student, I went to Randolph, Louisiana, to act as a substitute practitioner in a lumber concern, and I stayed there for three weeks. I got $11 a day and my board and room, and that is the last contract practice that I did. I was somewhat like the negro who took a flight in an airplane, and when he got through he said to the pilot: "Thank you, Mr. Pilot, for those two rides, my first and my last." (Laughter) I immediately appreciated the fact that although there was some money to be had from contract practice, the problems that confronted one in actually giving the service that was necessary to the sick patients could not be carried out. Since those individuals who were a part of the company or the lumber camp received their medical service by paying in a certain stipend to their employer, they felt that everything that happened to them from

a small scratch that could scarcely be seen on some of the dark skins that I was working with, up to the larger problems of medicine, must be seen that day and must be seen in the office, so that actually I was putting in my time, in the great majority of instances, looking after something that didn't amount to anything and the sick patients who needed my care were getting mighty little. Immediately the one problem that had to do with contract practice that was presented to me at that time was how it was possible to get rid of these small scratches so that they did not interfere with the larger problem of the practice of medicine.

I grant you that there are men who develop ability in industrial surgery who might weed out that situation much more rapidly than I was able to do, but the principle was there. It did seem that there was no other way that that problem could be handled. I was a number of miles from another town where a doctor could be gotten; there were certain days of the week when I had to go down into the woods and spend the entire day going through the camp, looking after the sanitary conditions, taking care of people who might be down in that neighborhood, and it wasn't possible for anybody to handle that situation except by some sort of contract plan. It seemed to me that if each of those individuals paid a comparatively small sum which they themselves had to pay into the coffer, they probably would not be so inclined to clutter up the office and thus make the people who were actually sick go by the board. That brings it down to the basic principle with which you have to deal, *that the individual who personally pays for medical service will not malinger and the individual who does not pay for medical service will be inclined to malinger in the great majority of cases. That is a human frailty.*

In oil companies, in mining concerns, in other places like that, I see no way that it is possible to get around the problem of contract practice. I see men who are handling this problem and handling it perfectly satisfactorily, for the reason, as I have said, that they have a background of ethics and the eternal fitness of things to direct them.

As we merge into other things in which contract practice presents itself, we begin to get lost in the forest again. It makes me think of a story I heard Mr. Seabury tell when he was talking at Detroit a few days ago. He said he was over in Manchester, England, and was walking along the platform of the station when he came to a baggage car where there were two baggage handlers and a rather forelorn looking little dog sitting there. One of the workmen said to the other: "Do you know where this dog is going?"

"No," said the other, "I don't and neither does he; he has chewed up his tag."

After we get to a certain point in contract practice, apparently we have chewed up our tag and just what direction to take is a difficult thing to determine.

I want to draw a definite difference between the way we feel about contract practice and the way the sociologist feels. The medical profession are inclined to include as good practice in the private practice of medicine, the care of such problems as I have mentioned, lumber camps, mining camps, etc., and industrial surgery. They are inclined to class all others pretty generally as bad practice. We may have to revise that. In the mind of the sociologist it is divided into the individual doctor—private practice, second, group payment, and third, group practice. With group payment they classify state control, the United States compensation laws, state practice; second, voluntary health insurance such as you see supplied by the health and accident companies; third, in their group practice they speak of contract practice in which obstetricians or pediatricians will for a certain stipend per year supply service to the families.

Now we will analyze some of these problems if we can. First is state medicine, state control. I still feel the same about state medicine as I did at the onset of my efforts with the State Society in which I said that state medicine bears the same relationship to the private practice of medicine that prostitution bears to true love—it is insincere, it is expensive, it is degenerating and has no place in the scheme of life of a free people. I believe that statement is pretty well established by the experience that Germany, Russia and England have had. We have no worthy guide in state medicine. I haven't the time to discuss its problems in its application in these other countries, but it has not worked well. When in Germany, a nation of very fine physical specimens, they have 16.5 days per capita per annum of illness while this country has 6.5, there must be something wrong either with the

investigation or with the malingering system of Germany. There is no reason why the German people should be sick three times as long as we are. When in England with the compulsory health insurance program that they have established, at the first of 1931 they had to borrow from the government of the British Isles $1,250,000,000 to meet their deficits, it doesn't look as if it was a very good program.

It means that the application of that program in this country would mean increased taxation of perhaps several times what we have at the present time, and if you don't think it is enough now I am wrong.

Voluntary health insurance programs have been presented. They too are not satisfactory.

I am coming back to the compensation laws of this country, by which the accident cases that occur in industry have been satisfactorily taken care of, I think, by the industrial surgeon, providing that industrial surgeon interests himself in the accident cases. We have had a little difficulty in Detroit by reason of the fact that unfortunately some of the industrial surgeons in the factories had too much interest in the families of the men who worked there and at times rather turned over to the nurse and to the orderly the care of the very thing that they were supposed to look after. That has been one of the most difficult things we have had to handle in Wayne County. I believe we are making progress with it.

In a little while I will read the industrial surgeons' code. You say the code of ethics for compensation cases should be the same as for everyone else. Well, it is, but the industrial relations committee of the Wayne County Society have done an excellent job; they established this code and they have developed a very friendly relationship with the general practitioners of Wayne. They have gone to the point of attempting to establish a committee which is to meet with the adjusters of insurance companies to arbitrate the difficult problems that present between the practitioner and the industrial surgeon. This is a resolution from the minutes of the meeting of the committees of Wayne County and the Detroit Adjusters' Association:

"Resolved, That an agreement be drawn up to be signed by the Wayne County Medical Society and the various insurance companies which will permit competent private practitioners to handle compensation cases, provided:

"1. That private physicians notify the carriers promptly in all cases." That has sometimes been a difficulty, that they have failed to notify the carriers.

"2. That private physicians who remain on these cases submit and sign a detailed report.

"3. That private physicians accept remuneration for their services according to a set fee schedule.

"4. That patients be given the privilege of choosing their own physicians if they so desire.

"5. That carriers will not advise patients that they will receive no compensation unless they accept the company physician.

"6. That carriers will reserve the right of examination by the company physician and consultation by him with the physician in attendance.

"Further, that an arbitration board be established to set up the above-mentioned fee schedule and to settle unliquidated claims and all other controversies that may arise between the attending physician and the carriers."

They have been trying in a very sincere way to handle the situation that in Detroit is a real problem. When you consider that there are—at least there were in good times—20,000,000 men under United States compensation laws, you can see that that is a real problem in this country, and this is an effort to establish an arbitration board whereby if someone on the outside gets one of these cases he can have consultation with the industrial surgeon, but he will be permitted to carry satisfactorily to a conclusion the conduct of that case. It would seem that that would solve some of the problems that we have in Wayne.

The code of ethics for compensation cases I will not read. It has been in the Wayne County Bulletin and I believe it is well worth your time to go into it.

In the matter of contracting to handle all types of medicine there seems to be a very definite obstacle. It comes down to the difficulty of socializing many of the things of life. For example, in your own community you can socialize up to this point: You can give them light, you can give them water, you can give them sanitary conditions, and in Detroit we apparently can't give them transportation, but beyond that it does not seem to be possible to socialize the community. In medicine we apparently are able to supply satisfactory communal care or socialized medicine up to the point at which the problems of preventive medicine are to be taken care of, and beyond that we cannot go. Why? Because nobody is going to malinger if he has scarlet fever or diphtheria or small-pox or tuberculosis or syphilis, consequently you have established a barrier. Beyond that in the matter of

socializing medicine it does not seem possible to go.

Dr. Vaughan thinks that perhaps curative medicine can be handled in that way. I still feel that it cannot. In a very simple way the problem of socialization of medicine can be applied to an ordinary wash-up room in a hotel. They can supply a bowl of water and soap and a rotten towel, and beyond that they cannot go. You perhaps might like to have a brush or a comb or a little toilet water or something of that sort. Why can't they do that? Because in order to do it they would have to have a guard there night and day to be sure you didn't take it.

That is the great difficulty in socializing all these things in life, that beyond a certain point the administration becomes so difficult and so expensive that it cannot be conducted.

Mr. Wolfenden, a statistician, has written on some of these problems. He feels that from an actuarial standpoint state medicine cannot exist (he is not a doctor; he is talking entirely on the problem of administration), because the administration cost becomes so high that it is not possible to satisfactorily conduct it. It is just the same as my wash-up room problem.

In the further consideration of contract practice I have a feeling that the minority report of the Committee on the Cost of Medical Care probably has presented as clearly as can be some of the difficulties. It says: "Contract practice must be considered unethical and injurious both to the public and to the physicians when any of the following features prevail:

"1. When there is solicitation of patients either directly or indirectly.

"2. When there is competition and underbidding to secure the contracts." Just as soon as that enters, the satisfactory service to the patient, which is the prime motive of our efforts, is gone.

It comes down to this: Can medicine be made a routine? Medicine cannot be made a routine and never will be. In some of the applications that industry and people who are interested in industry and commercialism try to make to medicine they assume that medicine can be made a routine. When they build a motor car they put in a lot of time experimenting, they spend millions of dollars experimenting, and then after it is all set they put it on a conveyor and out it goes and they think they can fabricate medicine that way. It never will be done. Every patient demands a certain investigation, every patient is different; every car is not, every suit is made in a similar manner, sometimes worse goods put into it, I grant you, but you can fabricate those things; in medicine you can't.

"3. When the compensation is inadequate to secure good medical service.

"4. When there is interference with reasonable competition in a community.

"5. When free choice of physician is prevented."

"6. When the contract because of any of its provisions or practical results is contrary to sound public policy."

In all these situations that present we finally run into the problem of ethics, and on the other hand commercialism.

The American Medical Association divides contract practice:

(a) for employment connected injuries. (That is your compensation law, and it seems to work fairly satisfactorily.)

(b) for employment connected illnesses and injuries. (There they are adding occupational diseases.)

(c) for injuries and illnesses which are either employment connected or which may have no relation to employment.

That is state medicine, so you see that situation has been presented time after time to different legislatures in this country, first injuries, second occupational diseases, and third all the other things, and those are the steps by which they travel.

The Committee on the Cost of Medical Care in its report assumes that there can be a satisfactory control so that the doctor won't have anything to do with the matter of cash benefits. What is coming up in every single legislature in this country? On one side they are talking about compulsory health insurance; on the other side old-age pensions, unemployment insurance. There is only one place where those who are interested will be satisfied and that is where those two things meet, and that means that you will be paid for being sick. When that comes there isn't any civilization that can possibly pay for it. (Applause)

Dr. Corbus: You will agree with me that the profession of this state is very fortunate to have as President a man who has such an understanding of our problems and such full qualities for leadership.

I take pleasure now in introducing to you Dr. Olin West, whom you all know.

SOCIETY'S CHALLENGE

Dr. Olin West: Mr. Chairman, Mr. President, Members of the Secretaries' Conference: It is quite a pleasure for me to be here and to have the added pleasure of recognizing among the company those whom I have had the privilege of meeting before from time to time, and it is quite a pleasure also for me to have the benefit of hearing Dr. Robb's splendid discussion of various topics that he has included in his talk.

Before I get down to what I want to say, it has occurred to me that you might be interested in hearing an extract that I ran across accidentally a day or two ago which I want to read to you first and then tell you where it came from. It is under the topic, "The Lesson of the Day."

"It is a gloomy moment in history. Not for many years, not in the lifetime of most men who read this paper, has there been such grave and deep apprehension. Never has the future seemed so incalculable as at this time. In our own country there is universal commercial prostration and panic, and thousands of our poorest fellow-citizens are turned out without employment and without the prospect of it. In France the political cauldron seethes and bubbles with uncertainty. Russia hangs, as usual, like a cloud dark and silent upon the horizon of Europe, while all the energies, resources and influences of the British Empire are sorely tried and are yet to be tried more sorely in coping with the vast and deadly Indian insurrection and with its disturbed relations in China. It is a solemn moment, and no man can feel an indifference, which happily no man pretends to feel, in the issue of events. Of our own troubles no man can see the end. They are, fortunately, as yet mainly commercial, and if we are only to lose money and by painful poverty to be taught wisdom, the wisdom of honor, of faith, of sympathy and charity, no man need seriously to despair. And yet the very haste to be rich which is the occasion of this widespread calamity has also tended to destroy the moral forces with which we are to resist and subdue the calamity.

"Good friends, let our conduct prove that the call comes to men who have large hearts, however narrowed their homes may be, who have open hands however empty their purses. In time of peril we have nothing but manhood strong in its faith in God to rely upon, and whoever shows himself truly a God-fearing man now by helping wherever and however he can will be as blessed and beloved as a great light in darkness."

I submit, gentlemen, that that might well have appeared in the columns of any well-edited periodical of the present day. As a matter of fact, it appeared in Harper's Weekly on October 10, 1857, just seventy-six years ago. Truly, there is nothing new under the sun. I submit it as almost an exact description of the very situation in which we find ourselves today.

I was very much interested in the remarks of the Chairman of the meeting who referred to some of the problems of leadership. In so far as I am concerned (and I speak not from the standpoint of the national medical organization but rather from the standpoint of state organization and of county organization), I fully believe that the medical profession has at this time as strong leaders, as intelligent leaders, as devoted leaders, as has any group on the face of this earth, and were it not for the problems which intimately concern medicine but are inevitably and irretrievably a part of the great general economic problems, I have no doubt that these problems of medicine would be solved and solved easily and promptly and correctly, because I am convinced that the leadership of medicine in our states and counties is strong enough and the desire of the entire medical profession, or at least of the members of the medical profession who are worthy the name of physicians, is righteous enough to see to it that the proper solutions should be made and would be made. But it is not possible, in my opinion, for the many problems which are now confronting medicine in the United States to be correctly solved because of the complicating factors that exist in the general economic fabric. If medicine could control the acts of government and of finance and of industry, and greatest of all of philanthropy, many of the problems with which we are now confronted never would have come into existence.

The position of leadership is a difficult position in these days and times because of the many complications that have been brought to bear and that have resulted in the precipitation of medicine into situations where it never should have been forced to go, and the control of these factors has not been in the hands of the medical profession.

I believe I am down on the program tonight to discuss Society's Challenge to the Profession. That is a subject that a man could talk on all night long, or he could say a few words and quit. I don't know yet which I am going to do. I am reminded of a story that I told Fred Warnshuis the other day. I think it is a pretty good story and I hope he hasn't beat me to it.

A fellow got lost down in the mountains in my state, and finally drove up to the cabin of a typical mountaineer. The man who told this story described the surroundings of the cabin in a most realistic manner. He told about the old mountaineer slouched in a cane-bottomed chair with his old hat pulled down over his eyes, leaning back against the wall taking a comfortable snooze, and the razor-back hog

out in the yard that was stroppin' himself against a stump, the old dog lying on the porch, waking up once in a while to snap at a fly. The traveler drove up to the cabin and yelled to the old mountaineer: "Say, how do I go to Knoxville from here?"

The old fellow unwrapped himself and pulled his hat up over his forehead a little, walked out to the man's buggy and said, "Well, stranger, yuh go down this holler here 'bout two mile an' turn to the left." Then he thought for a minute and said, "Naw, don't do that, I'll tell yuh, yuh go down that gulch over there an' go 'bout three mile and turn to the left. Hell, no," he said, "that won't do either. I'll tell yuh whatcha do, yuh go up this holler here an' yuh go 'bout six miles and then yuh turn to the right." He thought a minute and said, "Naw, yuh mustn't do that either. Hell's fire, Mister, if I was goin' to Knoxville I wouldn't start from here." (Laughter)

We are somewhat in that situation. There are a lot of things that are confronting us. We are in the position that we hardly know how to choose a starting point. I am somewhat in that situation also in being given the opportunity to talk under the title of Society's Challenge to the Profession. My own feeling is that the greatest challenge ever issued to medicine is the challenge of medicine to itself, so to speak, and that that challenge grew out of the recognition by medicine of its own responsibilities and its own duties to society long before society ever had any realization or any appreciation of the possibilities of medicine or of its responsibilities or duties.

The challenge of medicine to itself began with the very beginnings of the development of medical knowledge, and I say again that this challenge of medicine to itself grew out of its own realization of the possibilities of its service in behalf of mankind and of the duty and responsibility that devolved upon the devotees of medicine to provide good medical service for the benefit of humanity.

I call your attention to the fact that the first care of medicine has always been to make and to keep the interest of society and the interest of the individual needing medical service paramount to all other interests. I call your attention to the fact that from the very beginnings of medicine as medical knowledge has been developed it has been passed on without money and without price from the men who developed the knowledge to those who came after, always with the admonition that that knowledge should be used for the benefit of men and always with the admonition that it should not be abused and that it should not be used in any way except in the interest of society.

The realization of the responsibilities of medicine to society is further shown by the fact that medicine never has known any boundaries of nation or any other boundaries, but as scientific medical knowledge has been developed it has been freely given to the whole world, and in these ways that I have indicated certainly it has been definitely shown that if any challenge has issued to medicine the challenge has been accepted and the duties and responsibilities involved in that challenge have been creditably discharged.

There is a distinct challenge of medicine to the medical profession, involving the maintenance of the ideals of medicine as they have been established through many hundreds of years, and the insistence of medicine that these ideals shall be maintained is not simply for the sake of maintaining ideals, but rather because medicine knows that the observance of the ideals that have been built up on the basis of long and devoted experience is absolutely necessary to the delivery of a good medical service.

Another challenge of medicine to the medical profession collectively and individually is that it shall combat demands from any source that tend to destroy the professional aspects of medical practice.

Now, my friends, as I have studied these various questions that are now agitating the minds of physicians and of a certain element of the public, I have come more and more to be convinced that here is one of the most important duties of the medical profession, and that is to do everything that can be done to preserve the professional aspects of medical practice, because for the life of me I cannot understand how it can ever be possible that good medical service can be provided for those in need of its ministrations except through the agency of a scientific profession, a profession imbued with scientific ambition, a profession imbued with humaneness, with a love for medicine for its own sake, and with a love of medicine because of what medicine can do for mankind, and that is why, believing those things, I am doubtful, seriously doubtful and even fearful, about any and all of the artificial schemes that are being proposed and promoted for the delivery of medical service, I don't care whether these schemes involve what we know as contract practice or group practice or group insurance or whatever you may call it. I have the fear, which grows on me day by day as I have opportunity to ob-

serve these various schemes in operation, that all of them have inherent in them the danger of destroying professionalism in medicine, and when the professional aspects of medical practice are destroyed God help the public, because I say again that there is no agency through which good medical service can be delivered except the agency of a qualified medical profession. It must be a profession. As your President, Dr. Robb, told you, medical service cannot be delivered on a machine basis; it has got to be delivered on a professional basis and on an individual basis in order that it may be the best service.

There is the challenge of medicine to the organized medical profession, a very distinct challenge, first that it shall keep the medical profession clean and capable. I know perfectly well that the medical profession is not perfect because it is made up of men and women that are human beings, as is any other group, and I know perfectly well that there have crept into medicine within recent years certain tendencies upon the part of a certain small element of the profession that have created difficulties for the entire profession and that have reacted in an unfavorable manner upon medicine generally. The fact that these things are so, however, increases the responsibility of organized medicine in the matter and increases the gravity of its duty to see to it that the profession, so far as it can be done, is kept clean and capable.

The next is to create in the public mind an intelligent understanding of the aims and the possibilities and the limitations of scientific medicine. In other words, we must continue as organized medical societies our efforts to properly instruct the public about medicine and if possible to bring them to an understanding of what medicine can do and what medicine cannot do and of the methods and especially the professional methods that must be employed in carrying out the beneficent service that medicine has to offer and in combating any sort of influence that would tend to weaken the possibilities of the application of medical knowledge.

Another challenge to the organized profession is that it shall recognize and shall assume leadership that belongs to it because it is the possessor, the only possessor, of scientific medical knowledge. Because of that fact leadership naturally devolves upon the organized medical profession with respect to all matters involving the relations of medicine and the public, involving the relations of physicians one to another. In the challenge also is involved the duty of fighting fraud and quackery and the propaganda of theorists and of professional agitators or, for that matter, of amateur agitators who know nothing whatever about what is actually involved in the delivery of medical service. Those are duties that naturally devolve upon the organized medical societies.

Further, the challenge involves the duty of the organized medical profession to devise and to operate plans and methods for extending the service of medicine, taking care to see to it that such plans and methods will not destroy the fundamentals of good medical service but will preserve them.

There is a challenge to the individual county society that comes from medicine itself aside from any challenge that might issue from society to medicine. It involves the primary duty, as I see it, of the medical society, county, state and national, to promote the art and science of medicine and the betterment of public health, to develop and improve its own members. I want to say to you again as I have said on several occasions before and as I expect to continue to say every time I have an opportunity to say it, that one of the very fundamental duties of the County Medical Society and the State Medical Society and the American Medical Association is to do everything that can be done to make every member a better physician, and the County Society can do a great deal to that end. It can do it through its scientific programs, through giving the individual members an opportunity to develop themselves, in the discussion of medical subjects, and through affording the opportunity for the collective membership of the society to give aid to the man who tries to improve himself. It will never be done by having all of your programs taken over by men from outside. It is fine to have a man come from outside, some fellow who has a big name, and talk to you once in a while, but one of the prime duties of the County Medical Society is to develop its own men in the discussion of medical subjects, to improve their knowledge of the subjects that can properly be presented for discussion before medical societies, and thus to help make them better doctors.

There is a distinct challenge to the County

Medical Society to assume leadership in its own community in every phase of the social life of the community in which medicine is in any manner involved. I am proud to say that more and more the county societies over this country are fully rising to the accomplishment of that duty, and I believe that more and more medicine is beginning to exert a most helpful influence in the social life of the communities which have the benefit of the leadership of well organized County Medical Societies.

It is the duty of the County Medical Society to provide avenues for contact and for coöperative effort between the leaders of other phases of the social life of the community. For several years I have advocated as strongly as I could the appointment of active, earnest committees which have generally been called committees on public relations, and the more I see of the work that such committees are doing in a number of places in the United States in various cities, the more I am convinced that in the committee on public relations—you can call it something else if you want to—is to be found one of the most useful arms of medical organization.

I had in my office just yesterday a man who told me about how the situation in his own community had improved since the appointment by his County Medical Society of a committee on public relations. The first thing that committee did after its appointment was to invite the president of the Rotary Club and the president of the Lions' Club and the president of the Kiwanis Club and some other clubs in for a conference, and to ask those men, all of whom were leaders in the town and in the county: What is your criticism of medicine as it is practiced in this county? What suggestions have you to offer as to how the medical service in this county can be improved? What part can this County Medical Society play in the social life of this community in a helpful manner that it has not already become active in?

They told me: "We got some splendid suggestions from two of the three or four or five men that were invited, and within three days the talk of the town was that the County Medical Society had actually become interested in the life of the community, and within a week we were covered with visits from the citizens of the county, all of whom were seeking our advice as to what would be the best thing to do about insanitary conditions in a school, how we could help to make the health department more effective and keep it where it belonged, and on and on and on." He said, "Furthermore, there isn't a week that passes that our committee doesn't have a meeting, and no meeting is ever had that is not attended by some of the most influential laymen in the county who come to us for advice and instruction and guidance."

I maintain that that County Medical Society is going to be the most useful body in that county, and the measure of the service that it can render under the assumption of such leadership will be tremendously large.

Of course, the great challenge of medicine to itself is the one which has always been recognized by medicine and which has been definitely and fearlessly met, and that is the challenge to develop a knowledge of scientific medical truth, to apply that knowledge in a manner that will bring the most benefit to the people, and to die by the truth. That is why it is necessary, my friends, that medical societies all over this country, in Michigan, in Alabama, in Texas, in New York, in every state, shall study conscientiously and carefully all of these problems that are being so much talked about, until the medical profession can develop the truth from the standpoint of scientific medicine. Don't condemn them, don't wave them aside; develop the truth and deal with them on the basis of scientific truth, always with the earnest and honest intention to promote truth and to make it apply in a manner that will bring the greatest benefit to humanity.

Dr. Corbus said something about leadership and he made some personal reference to me that scared me badly. I looked upon myself as a servant of medical organization, and I never have considered myself any great leader. I find the greatest joy in devoting whatever talent or energy I may have to the service of organized medicine, but if I were a great leader or if someone in my place were unmistakably a great leader, he could not solve all of the problems that confront the medical profession in the various localities of the United States at the present time. I don't know that anybody can solve them, but the more I study these things and the more I come to realize the diverse and many times the directly opposite conditions that exist in one community as compared with another, *the more I realize that the*

local County Medical Society must study its own problems, secure all the information that it can of a general nature, in the hope that it may find some information that will immediately apply to its particular problems, and deal with them to the best possible advantage, always with the earnest conviction that they must be dealt with in a manner that will first serve the public interest and the interests of the individual patients.

I want to say just one word more. There is no interest of the public that is not the interest of medicine; there is nothing good for the public that will not be good for medicine, and there is nothing good for medicine that will not be good for the public.

I thank you most kindly for your very cordial courtesy. (Applause)

Dr. Corbus: We are very grateful to you, Dr. West, and to you, President Robb. Of course these talks are not intended to be followed by a discussion, but it occurred to me that there might be some questions, and I would give you the opportunity to ask them.

MOBILIZED FORCES

Dr. F. C. Warnshuis: Mr. Chairman, Dr. West, President Robb, and County Secretaries: I know that upon you as County Secretaries there rests the tremendous burden of local problems that are trying and that tax your time and ingenuity. We who have been privileged to serve as state secretaries think that in the discharge of our state duties we have exceedingly heavy burdens that are trying, that tax our ingenuity and often disturb our equanimity. Then again, when we have Dr. West come to us, who has the burdens of the nation not alone, but the burdens of the world with regard to organized medical activities, we know something of the load that he is working under, and I am sure that you join me in expressing to him our appreciation for coming here this evening and giving us the talk that he has, taking the time that is his and which makes such a heavy demand upon him in the discharge of his national duties.

As was intimated, I was supposed to give the text for the two talks this evening. By what means the speakers gleaned those texts and talked from them without my having imparted them to them I do not know. However, the sermon has been preached and it only remains for me now to pronounce the benediction.

I had intended to talk on public opinion and to point out where in the formation of sound public policies and activities the public looks to recognized leaders for guidance and judgment, and I was going to point out that in medical problems they look to the County Medical Society for that leadership and for the formation of sound public and local opinion. I was going to stress for a moment that some of us have always found the county officers and a certain group of men through the state performing the duties of the state organization; they have carried on the sound principle of organized medicine that was created in 1900 by the American Medical Association reorganization at Saratoga Springs where the County Society was made the unit, the state next, and the American Medical Association the national representative of the profession in this country, and during this score or more of years you who have served in the capacity of county officers and those who have served their state and those who have served the nation have conveyed the principles of organized unity and organized activity, but they fell, ofttimes, on soundless ears. When things were happy, business was prosperous, income was good, they gave little heed to the warnings that have been uttered by men like Dr. West. Then suddenly we have a rude awakening, as has come to us in the past three years when we have seen our riches disappear. We had paid no attention to these interlopers, these uplift workers, these social guiders, and these what-not helpers of humanity, and their inroads suddenly, within the last year, have come to a crisis and organized medicine finds that it is at the dividing of the ways and that it is only through organized unity that we will be able to conserve for the future all the traditions of our profession that have been so brilliantly recorded in the past, and safeguard to the individual doctor his right to continue as an individual practitioner of medicine. Suddenly they call upon us as county officers and as state officers and upon Dr. West and the rest of the national officers to come to their rescue and bring forth some program or some policy that is going to enable them to retain their identity and their individualism and permit them to continue the individualistic practice of medicine.

We are at the crossroads and the various proposals that have been advanced within the last year or two confront us, and the

question arises in the mind of every doctor: What shall we do? Your preachers of this evening have advised you. We ask you as men who are the key men in the counties that constitute our plan of medical organization, to go back and enlist the men of your counties in the solution of the local problems, and as you solve them, aided by your judgment we shall try to solve the state problems, and with the judgment of the various states of our Union we will solve our national problems, which will safeguard the future of medicine and not let it become subservient to these uplifters and lay workers. We ask you to go home and enlist every eligible physician in your county in order that we may have a mobilized force. You who have been holding the front line trenches heretofore must now bring on the battalions that are going to weather this barrage that is suddenly being cast upon us. We ask you to appoint public relations committees immediately and to see that they promptly undertake the activities that devolve upon them in their communities, as has been pointed out to you by the speakers of this evening and by Dr. West. We ask you to become interested in your local community problems and to exercise a community influence in matters related to hospitals, clinics, health departments, schools, clubs, and the officials in your county and in your local town, city or hamlet. It is only in this manner that we are going to be able to convey to the public sound recommendations that will serve as guiding principles that will save them from some of the things that we now know have occurred in other countries and in other nations who have sought a panacea for the care of those who are not quite able to obtain that which scientific medicine is able to give them.

That, Mr. Chairman and Fellow-Secretaries, I feel is the call of the hour to you who have accepted the office of Secretary in your County Society. It is an obligation that rests upon you, because your office is not an idle one, and if you sought it and hold it simply for the honor I believe the best advice that can be given to you is to relinquish it to someone else who will accept these responsibilities.

There is one more important thing that I want to stress. Dr. West has hit upon it for a moment. In the past there have been those who have sought to express the opinions of medicine when they knew not what that policy and opinion of medicine was. The precedent is fairly well established and should be observed by every member of the profession that in matters locally the County Medical Society is the spokesman of the profession in that county, and that in matters of the state the State Medical Society is the spokesman for the profession in that state, and in national medical matters the officers of the American Medical Association are our spokesmen in national affairs, and it ill behooves us, though we may have a great opinion as to our judgment and our plan of solution, to utter anything that will cast distrust and create confusion in the minds of the people who are seeking a solution of their difficulties and who are seeking to secure adequate medical care for all of the people in their immediate vicinity.

Mr. Chairman, I think that is a long benediction. Of course, every sermon should be concluded with a prayer, and I am going to make this prayer a quotation that I secured somewhere, I don't know where:

"We must deal collectively with the exploitations of medicine. The safety of the public in matters of life and health rests upon the initiative of our profession. The preservation of all that is best in the traditions of our profession, of all that has been produced in the development of the science of medicine, can be accomplished only in a close union of our individual interests. It must not be forgotten that medical organization has been and will continue to be the most powerful influence in the protection and maintenance of the personal rights and interests of the individual physician. The fact must not be lost sight of that medical organization has consistently demanded that the economic security of the individual practitioner be assured along with the welfare of the public at large in any new form of medical practice which may be evolved. Medical organization has not overlooked the fact that the personal human element in medicine predominates. After all, medical practice is secondary to and dependent upon the progress of the medical profession.

"The solution of the problems of the profession is a means to an end. Let the profession fail and medical practice fails also. Medical practice does not stand alone, and for that reason cannot endure unmolested without the protection of the medical profession. Medical practice is merely the child of the medical profession, and without

proper organization becomes an orphan. Through the maintenance of strong medical organizations the medical profession will have reasonable assurance that its economic security will be protected and safeguarded and therefore that it will be permitted to keep pace with the advancement of scientific medicine. Under such conditions sound medical practice can be carried on and competent medical care can be provided.

"Much depends on how the medical profession acts to meet the present crisis. Only by united action can it hope to weather the storm and preserve those proven principles which it knows to be best for the public and for its own members."

There, Mr. Chairman, endeth the last lesson. (Applause)

Dr. Corbus: I was embarrassed at the moment in not having the program before me, but I am wonderfully pleased in having Dr. Warnshuis come last. The talk he has given us is more effective than if he had given it at the beginning.

Dr. West: I should like to say one word before you dismiss the audience. We have compiled at the headquarters office of the American Medical Association a great mass of information of one kind or another dealing with some of the questions that are agitating our minds today, and that information is there for your use. If you think we can help you in any manner by providing it for you, all you have to do is ask for it. I would specifically request, however, that in asking for information you be specific. Please don't send me a letter such as I got today just before I left my office to catch the train. The mail came in and my secretary said, "Here is one letter that is going to keep you busy for the next three weeks." I glanced at it, and it had thirty-four questions involving matters of ethics, questions of economics, questions of science, theoretical questions, impossible questions, and all sorts of questions, some of which nearly anybody ought to be able to answer and some of which nobody under God's sun ever will be able to answer.

We shall be happy indeed to make available to you any information that we have in the offices of the American Medical Association that you think may be at all useful to you in your work as County Secretaries, and we shall be happy to make such information available to your members. Moreover, we shall be delighted to have any of you come to see us at any time when you happen to be in Chicago and to visit any department of the Association, ask any question, see everything you want to see, and carry away anything that we have that you think will be helpful to you in your work.

I believe, as I have already stated, that because of the diverse conditions existing in the various communities of this country there are many problems that must be dealt with by the local County Medical Societies on the basis of the conditions in their own communities, but I did not mean to say that your State Medical Society and the American Medical Association do not stand ready to give you all the help that they can give you. We shall be happy indeed to have you call on us for such help as we may be able to render in the Chicago offices of the American Medical Association. (Applause)

Dr. Warnshuis: What Dr. West has told you is true also of your State Secretary's department and also of the Councilors of our State Society. I know that Dr. West receives a large number of inquiries such as he has cited this evening. He has a tremendous amount of work that falls upon him, and we are trying to save him for the bigger problems, so we would suggest first that in seeking information you apply to our state office where we may be able to supply the information. If not, we will secure the information for you from Dr. West.

Dr. Corbus: We know you will go back and tell your County Societies that we are well prepared to take care of you at the state meeting in September. We look forward to seeing you all here again at that time.

The meeting adjourned at 9:20 p. m.

Note: The foregoing is the unedited stenographer's record.

MEMBERS ATTENDING COUNTY SECRETARIES CONFERENCE HELD FEBRUARY 28, 1933

Arthur F. Fischer, Hancock, Mich.
E. J. Evans, Ontonagon, Mich.
Henry R. Carstens, Detroit, Mich.
Frank L. F. Reynolds, Ironwood, Mich.
L. W. Switzer, Ludington, Mich.
John L. Burkart, Big Rapids, Mich.
D. W. Fenton, Reading, Mich.
Geo. D. Schermerhorn, Reading, Mich.
Florence Ames, Monroe, Mich.
M. E. Stone, Muskegon, Mich.
Geo. L. LeFevre, Muskegon, Mich.
W. B. Newton, Alpena, Mich.
W. L. Finton, Jackson, Mich.
R. H. Alter, Jackson, Mich.
E. C. Hansen, Manistee
R. J. Hubbell, Kalamazoo, Mich.
R. S. Anderson, Livington, Mich.
Geo. M. Kesl, St. Clair, Mich.
John J. McCann, Ionia, Mich.
A. E. Hollard, Belding, Mich.
C. G. Clippert, Grayling, Mich.
P. R. Urmston, Bay City, Mich.
Jos. N. Scher, Mt. Clemens, Mich.
E. S. Huckins, Bay City, Mich.
S. Martin Tweedie, Sandusky, Mich.
T. F. Heavenrich, Port Huron, Mich.
J. E. McIntyre, Lansing, Mich.
Russell L. Finch, Lansing, Mich.
L. G. Christian, Lansing, Mich.
Frederick A. Baker, Pontiac, Mich.
Lloyd L. Savage, Caro, Mich.
Ervin J. Brenner, East Jordan, Mich.
Geo. F. Swanson, Newberry, Mich.
W. B. Bloemendal, Grand Haven, Mich.
E. F. Sladek, Traverse City, Mich.
T. Y. Ho, St. Johns, Mich.
W. E. Ward, Owosso, Mich.
W. C. Ellet, Benton Harbor
E. C. Baumgarten, Detroit, Mich.
J. F. Carrow, Cadillac, Mich.
J. Milton Robb, Detroit, Mich.
B. R. Corbus, Grand Rapids, Mich.
L. F. Foster, Bay City, Mich.
Wm. A. Hyland, Grand Rapids, Mich.
H. B. Knapp, Battle Creek, Mich.
Louis Le Fevre, Muskegon, Mich.
John Whalen, Grand Rapids, Mich.

COUNTY SOCIETIES

BAY COUNTY

President Huckins called a regular meeting of the Bay County Society, at the Wenonah Hotel, Wednesday, February 8, at 6:30 o'clock. The Bay City Dental Society were guests of the Society.

The meeting was featured by an illustrated address given by Dr. Claire Straith of Detroit. His subject was "Reconstructive Facial Surgery." He was accompanied by Dr. Floyd Straith.

The Doctors Straith presented an interesting exhibit on Plastic Surgery. Various groups viewed the exhibit during the afternoon.

L. Fernald Foster, M.D., *Secretary.*

GRAND TRAVERSE-LEELANAU COUNTY

The regular monthly meeting of the Grand Traverse-Leelanau County Medical Society was held February 21, 1933, at the J. D. Munson Hospital.

The Convention Committee reported the results of their survey of the possibilities of holding an annual meeting of the State Society in Traverse City, and stated that a copy of this survey had been sent to the Council.

The program committee reported that all arrangements had been made for a clinic in March.

The speaker of the evening, the Honorable Parm C. Gilbert, Judge of the Circuit Court, then addressed the members. His subject, "The Doctor in the Court Room," was masterly and served to remove some of our fears of being brought into court to testify. He particularly emphasized the importance of the doctor's using the simplest possible language in his testimony. He pleaded for better coöperation between the medical profession and the judge in any case, stating that after a conviction has taken place, the question of privileged communication is removed, and any information as to the physical or mental makeup of the person convicted, which would help the judge in properly placing that person, would be appreciated.

E. F. Sladek, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The February meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, February 23, 1933.

Fifteen members and four visitors had dinner together and three members came in after dinner.

President Carney called the meeting to order. The minutes of the previous meeting were read and approved.

President Carney then introduced Dr. Earl I. Carr of Lansing, chairman of the Legislative Committee of the State Society, who described the bills, which concern the doctors, that have been introduced in the legislature. Some further questions were asked of the speaker, after which Doctor Carney called for a rising vote of thanks to the speakers.

E. M. Highfield, M.D., *Secretary.*

MECOSTA COUNTY

A regular meeting of the Mecosta County Medical Society was held at the Western Hotel, Big Rapids, Tuesday, February 14, 1933, Drs. Treynor and Bruggema acting as hosts.

Present: Drs. Campbell, Greive, Treynor, Yeo, Kelsey, MacIntyre, Franklin, Kilmer, Clark, Chess, Bruggema and Burkart. Dentists Pryor, Zetterstedt, Shepherd, Shank. Guests: Drs. Wm. R. Vis and Leland M. McKinlay of Grand Rapids.

Dinner was served at 7:00 p. m. The meeting was called to order by President Campbell at 8:00 o'clock. Minutes of the last regular meeting were read and approved. A communication from Board of Management of Community Hospital, relative to reduction of rates for County cases, was read. Discussion on the mention of reducing rates for medical and surgical county cases brought out the fact that the Board of Supervisors desired a reduction of fees on all county cases. On motion, President Campbell appointed Drs. Franklin, Clark, and Yeo to meet with a committee from the Board of Supervisors and report at the next meeting of the Society if possible.

The meeting was then turned over to the Program Committee. Dr. Yeo, acting chairman, introduced Dr. Wm. R. Vis of Grand Rapids, who read an interesting paper on "The Present Status of Tuberculin Testing," concluding with the following deductions:

1. A considerable percentage of autopsy cases fail to show evidence of tuberculosis.
2. A majority of our population are not sensitized to tuberculin.
3. A tuberculin test is of diagnostic value in every doubtful case.
4. A negative tuberculin test may be as helpful as a positive reaction.
5. A tuberculin reaction is not a constant. Like other allergic manifestations it may change from positive to negative or vice versa.

Dr. Leland M. McKinlay followed Dr. Vis, and gave a highly instructive demonstration of "New Methods of Treating Early Prostatic Obstruction." The Young "punch" operation with McCarthy improvement was illustrated and commented upon; various procedures and methods were discussed and value commented upon.

A rising vote of thanks was tendered the speakers and hosts of the evening.

Jno. H. Burkart, *Secretary-Treasurer.*

NORTHERN MICHIGAN

The regular meeting of the Northern Michigan Medical Society was held at Petoskey, Thursday, March 9. After a delightful dinner the meeting was called to order by President Frank. Minutes of the last meeting were read and approved. Correspondence was read. The Secretary then gave a report on the Annual Secretaries Meeting that was held at Grand Rapids, February 28, 1933. Plans were then formulated for a very successful April meeting at which Dr. Udo Wile will be the guest. All members were urged to keep this date open and remind all other members to do the same. Drs. Burns, Brenner and Van Leuven make up the program committee. Drs. Beuker and McGregor of East Jordan and Boyne City were voted membership in the Society.

E. J. Brenner, *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of the Saint Clair County Society was held February 21, 1933. Twenty-four members and three guests attended. Dr. D. J. McColl, president, was in the chair.

Minutes of the preceding meeting were read and approved. Several communications were read. Doctor McKenzie made a preliminary report on the application of Dr. Howard R. Johnson of Capac for membership in the society and asked for additional time before further action. Doctor Heavenrich invited the membership of the society to attend the Rotary meeting on February 23 in order to listen to the address of Doctor Dixon of the Michigan Home and Training School at Lapeer.

Doctor McColl asked the vice-president, Doctor Brush, to introduce the speaker of the evening, Doctor Robert B. Kennedy of Detroit. Doctor Brush did so with a few appropriate words. Doctor Kennedy then addressed the society and assembled guests upon the subject, "Relief of Pain in Labor and Treatment of Occiput Posterior Presentation." Doctor Kennedy's talk was very practical and his listeners were impressed by the manner in which he covered the subject. With regard to analgesia in labor Doctor Kennedy stressed two preparations which in his experience were the best available; sodium amytal and scopolamin both produced, if given in large dosage, satisfactory result. The former caused more or less respiratory embarrassment to the newborn, while the latter did not do so if used alone and not with morphin. Of the two, amytal

was the more satisfactory from the maternal standpoint. The two when used in combination had, in the speaker's experience, produced two fatalities and should never be used. With regard to occiput posterior presentations the speaker demonstrated his remarks with a mannikin. He stressed early diagnosis, patient waiting in order to allow the rotation of the head through an arc of 120 degrees to an anterior position, the election of one of the many procedures to correct the presentation, if necessary, and the selection of the one procedure with which the operator had become familiar and was in the habit of using. Personally Doctor Kennedy uses the manual rotation method, using his right hand to rotate head and loosen shoulder caught posteriorly on the pelvic vertebral prominence and applying the forceps with the left hand while holding the head in anterior position with the right hand. Forceps application should never be attempted until full dilatation, that is until the cervix has slipped behind the presenting part. If necessary the cervix may be cut at ten and two on the clock's face, in case forceps are to be applied before complete dilatation.

The discussion was opened by Doctor Armsbury followed by Doctors Sites, Ryerson, LeGalley, Brush, Waltz, Waters, Heavenrich, N. J. McColl, Bowden, McKenzie and D. J. McColl. Doctor Kennedy then brought the evening to a close by replying to many of the queries made in the discussion.

The President thanked our guest for his splendid presentation of a very important and practical subject and a rising vote of thanks was extended him by the society. The meeting adjourned at 9:40 p. m.

A regular meeting of Saint Clair County Medical Society was held Tuesday, March 7, 1933. Supper was served to ten members and two guests at 6:20 p. m. Before the program began six additional members were in attendance. Owing to the fact that President D. J. McColl was ill and Vice-President H. O. Brush was absent, the meeting was called to order at 7:35 p. m. by the Secretary-Treasurer.

All business was omitted and the Chair then introduced the first speaker, Doctor Frank H. Purcell of Detroit, who spoke on "The Differential Diagnosis and Treatment of Osteomyelitis." Doctor Purcell covered his subject in a very comprehensive and interesting manner. In describing the acute fulminating type of the disease in the young, Doctor Purcell stressed injuries of extension as a factor in etiology. Flexion, in his opinion, is less likely to cause injury leading to the production of an osteomyelitis. Chill, fever, prostration, with objective tenderness along the epiphyseal junction indicate a probable beginning of osteomyelitis. The X-ray does not present early evidence of the condition and a negative X-ray film does not preclude the presence of osteomyelitis. Sudden onset is characteristic. In bone tuberculosis the onset is slow, the pain less acute and the roentgenologic picture usually shows the pathology in a joint rather than at the epiphyseal line. Malignant growths are also to be differentiated by means of the X-ray. The treatment is a thorough cleaning out of the affected structure, a sculpturization, which usually is successful, bone regeneration being very active in the young. Maggots, in selected cases, may be used with good result. Doctor Purcell demonstrated a number of films showing osteomyelitis before and after surgical treatment.

Doctor W. H. Brosius of Detroit spoke to the Society upon the subject, "An Evaluation of Endocrine Therapy." The subject was covered in a very interesting manner with a series of lantern slides showing particularly pictures of patients suffering with classical endocrine hyper- or hypofunction. Doctor Brosius stated that many manufacturing concerns selling endocrine extracts were bringing endocrine therapy into disrepute by their extravagant claims for their pluriglandular preparations. He read literature coming to him by mail from a few of these concerns and exposed the unscientific claims made for certain products. Of all the gland extracts, only two, said Doctor Brosius, are effective when taken my mouth—thyroid and theelol. According to the latest investigators even pituitary extracts, unless taken in huge oral dosage, are rendered inert by the action of the digestive juices. The speaker stressed the need of accuracy in history taking and the making of a definite diagnosis before treating a given case with gland extracts. Many extracts are active when given by the subcutaneous or intramuscular route and produce given result. Intravenous injections should not be made because of the danger of a reaction.

Discussion was opened by Doctor Mackenzie followed by Doctors DeGurse, Heavenrich, Patterson and Battley; Doctors Purcell and Brosius closing their subjects in the usual manner. A standing vote of thanks was given the speakers by the Society before adjournment.

The Society adjourned at 9:35 p. m.

George M. Kesl, *Secretary-Treasurer.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The Bay County Auxiliary met Wednesday, February 22, at the home of Mrs. R. E. Scrafford. There were twenty-eight members present.

After a buffet supper, a regular business meeting was conducted by the president, Mrs. H. Payne Lawrence.

There seem to be many who are interested in the Auxiliary and our meetings are very well attended. We hope to add to our membership list this year.

Our sympathy goes to our loyal treasurer, Mrs. H. M. Gale, whose husband has recently passed away.

A social hours was held after the meeting was adjourned.

Next month we will meet at the home of Mrs. C. A. Groomes.

Ruth Allen, *Corresponding Secretary.*

JACKSON COUNTY

On February 21, Jackson County Auxiliary met at the home of Mrs. E. J. Wilson for dinner. The program consisted of several solos—vocal, violin, and piano—and of a reading, three of the numbers being given by our own members.

Our Auxiliary has given subscriptions of *Hygeia* for one year to Mercy Hospital, Foote Memorial Hospital, Public Library, Tuberculosis Sanitarium, East Side Branch Library, and a year's subscription of the *Saturday Evening Post* to the Public Library. Our city commission has given no appropriation to the library for magazines this year, so subscriptions are much needed and appreciated.

Mrs. George A. Seybold, *President.*

WAYNE COUNTY

One hundred members and guests of the Woman's Auxiliary to the Wayne County Medical Society gathered to attend the Valentine luncheon which was held at the Florence Crittenton Hospital on Tuesday, February 14, 1933. The main topic un-

der consideration was the work of the Florence Crittenton Hospital. It was very interesting and helpful to know how much good these folks and this hospital are doing for humanity. Following this very interesting talk, which was given by Miss Hood, Superintendent of the Hospital, Miss Olga Fricker, from the Bonstelle School of Dance and Drama also gave a very inspiring talk on dancing for health and beauty. Miss Fricker had six of her pupils illustrating the different dances. The business meeting followed the program.

The Wayne County Medical Society, assisted by the Woman's Auxiliary, had a booth at the Fifth Annual Child Health Institute, which was sponsored by the Detroit Council of the Parent Teachers' Association in the auditorium of the J. L. Hudson Company. This exhibition started January 23 and ended January 28. The Hygeia and Public Relations committee endeavored to establish connection between the laity and the medical profession. The program stressed the following:

1. Prenatal care of the expectant mother.
2. Periodic Health examinations for everybody with special reference to the adolescent period.

The Welfare Committee of the Wayne County Medical Society with the assistance of the Woman's Auxiliary raised funds for its work by sponsoring a party at the Bonstelle Civic Theater on Saturday night, February 25. The play was called "The Highroad," a Frederick Lonsdale comedy. This was an opportunity to do an act of charity for the physicians and their families who are in great need.

The Legislative Committee with some members of the Board of Directors met for luncheon in the club rooms on February 7. Dr. Louis J. Hirschman, chairman of the Legislative Committee of the Wayne County Medical Society, outlined the following legislative proposals: The Old Age Pension, Crippled Children, and the Administration Tax Bills.

The committee has written many letters to members of the Senate and House of Representatives commending them on Bills presented or amended which are favorable to the medical profession and the taxpayer. This procedure was made possible by the kindness of Mr. Burns, executive secretary of the Wayne County Medical Society, in keeping Mrs. Chas. J. Barone, chairman of the Legislative committee of the Woman's Auxiliary informed of the activities in Lansing. Books entitled "Your Public Business," by Ed. A. Nowack, are being distributed and those who have not received a copy may procure one by contacting any member of the Legislative committee, who are as follows:

Mrs. Chas. J. Barone, 18264 Santa Rosa Drive, University 1-3242
Mrs. L. O. Geib, 3860 St. Clair—Len. 5403
Mrs. Don Bailey, 18912 Monica—Un. 1-3829
Mrs. Geo. VanRhee, 4108 Pasadena—Hog - 0728
Mrs. Andrew S. Brunk, 1087 Parker Ave.—Fizroy 0566

The committee is spending much time reading bills as they are presented in the Senate and House and by being familiar with these they hope to be of help if called upon.

The act providing that indigent cases be treated at the University Hospital at county expense should be amended to provide for these cases being treated in each county hospital. This amendment would save each county money as the cost of medical care in the counties is much less than at the University Hospital. The act and the contemplated amendment are being carefully studied and the facts are to be presented to the County Board Auditors for future action. The tax situation in Michigan and its relation to the Primary School Fund is also being studied.

MRS. LESLIE T. HENDERSON, *Publicity Chairman.*

GENERAL NEWS AND ANNOUNCEMENTS

Dr. Angus McLean of Detroit attended the inauguration of President Roosevelt on March 4.

Dr. George E. McKean of Detroit has returned from winter cruising in the West Indies.

Dr. Walter J. Cree of Detroit has returned from a six weeks' trip in Cuba and Los Angeles, California. He reports a severe storm at sea as well as a stand storm at Los Angeles. Dr. Cree reports a very satisfactory vacation.

Dr. Frank A. Mercer of Pontiac, who was president-elect of the Oakland County Medical Society, has become president of the Society following the resignation of Dr. C. A. Neafie, who resigned to accept a position in the state of Maine.

The address of the editorial office of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY has been changed to 5761 Stanton Avenue, Detroit, Michigan. Medical articles and correspondence to the editor are to be accordingly directed. Telephone: Garfield 2222.

The editor has received a brief poem for publication in the Journal. Since this poem has not been accompanied by the name and address of the sender it will be held up until the contributor is known to the office, though his name will not necessarily appear in the Journal if, for reasons bordering on modesty, he so wishes.

Dr. G. D. Miller of Cadillac, Michigan, died at his home, February 16, of carcinoma of the prostate. He graduated from Rush Medical College, Chicago, Ill., in 1902. He was Fellow of the American College of Surgeons; Chief of Staff of the Mercy Hospital; past President of Tri-County Medical Society; member of the American Medical Association; member of the Michigan State Medical Society.

The Michigan Nurse for March is a special physician's number. Dr. J. M. Robb, president of the Michigan State Medical Society, occupies the place of honor with his portrait on the cover. Among the contributors to this number are Drs. Robb, Detroit; F. C. Warnshuis, Grand Rapids; J. D. Bruce, Ann Arbor; W. H. Marshall, Flint; E. I. Carr, Lansing, and Douglas Donald, Detroit, Michigan.

"Hospitals operated by the Detroit Department of Health and certain vitally important services rendered by that organization are threatened with extinction if funds owed by the State are not immediately made available. If Herman Kiefer Hospital and the Maybury Sanitarium, together housing some two thousand patients with communicable diseases, are closed, the health of every person in Detroit will be distinctly menaced. In addition, should the milk and food inspection service be terminated, chaos will surely reign. The money necessary to relieve the stringent situation is due to the Health Department from the County, the latter being unable to make payment until it receives funds due from the State."—*Wayne County Medical Bulletin.*

On March 14 the annual joint meeting of the Detroit Bar Association and the Wayne County Medical Society was held in the auditorium of the Mac-

cabees Building, when the room was completely filled with members of the Detroit Bar, as well as the Wayne County Medical Society. The program as announced was carried out to the letter, as follows: (1) "The Introduction of Hospital Records for Evidence," by Humphreys J. Springstunm, LL.B. (2) "The Minority Report of the Committee on the Cost of Medical Care and the Future Outlook of the Private Physician," by H. W. Plaggemeyer, M.D. (3) "What Is Expected of an Expert Witness?" by Frederick T. Harward, LL.B. In addition Dr. O. A. Brines presented an exhaustive study of a patient with hydatid cyst of the liver. The custom inaugurated two or three years ago of the lawyers and doctors has proved one of the most popular features in connection with the two socities.

DR. WILLIAM H. RILEY OF BATTLE CREEK HONORED

In honor of fifty years of service at the Sanitarium as neurologist and psychiatrist, Dr. William H. Riley was the guest of honor of some two hundred of his friends and older employees of the institution Tuesday, March 21, 1933, at a banquet at the Sanitarium. Graduating from Ann Arbor in 1886, he came to the Sanitarium and after taking up neuropsychiatry has remained true to his first love.

He did considerable research work in tabes and pernicious anemia, showing the changes in the spinal cord in these two diseases. He witnessed many changes in the concepts of psychiatry, which in the early days was a mass of obscurities; the result of a compromise between ancient and modern methods. His studies led him abroad and his name is affiliated with many medical organizations, among them being noted the following:

The Royal Society of Medicine of London; The Central Neuropsychiatric Association; Detroit Society of Psychiatry and Neurology; Association for Research in Nervous and Mental Diseases; American Psychiatric Association; The International Society of Hydrology of London; American College of Physicians; American Medical Association; Michigan State Medical Society; and the Calhoun County Medical Society.

Remarks were made at this meeting by Dr. Charles E. Stewart, Dr. M. A. Mortensen, Dr. Charles W. Heald and Dr. H. B. Knapp, and telegrams and letters of congratulation were read from Dr. John Harvey Kellogg, Dr. R. H. Harris, Dr. B. N. Colver, Dr. Walter Martin and others.

To Dr. Riley the Calhoun County Medical Society extended the felicitations of its members upon his attainments in the fifty years of service.

THE DOCTORS' LIBRARY

THE PELVIS IN OBSTETRICS. A PRACTICAL MANUAL OF PELVIMETRY AND CEPHALOMETRY. INCLUDING CHAPTERS ON ROENTGENOLOGICAL MEASUREMENT. By Julius Jarco, M.D., Consulting Gynecologist, Hastings Hillside Hospital. 140 illustrations, 51 tables. Price $6.00. Paul B. Hoeber, Inc., New York, 1933.

This volume is an outstanding contribution to the obstetrician and to the general practitioner who may feel a little insecure in his knowledge of what the pelvis and its conformation really mean. Some of the forerunning chapters may seem rather elementary but after all form a basis for the more technical ones succeeding. A very interesting chapter on the Historical Review is followed by one on the Normal Female Pelvis, which, while its chief function is that of mensuration, the chapter is also rich in the study of comparative pelves of women of different countries throughout the world and he adds: "It is the women who work out of doors who have easy labors, while city dwellers and those who live in seclusion have the more difficult times."

Chapters on the abnormal conditions and those with reference to the use of roentgen-ray are very worth while. The publishers deserve great credit for the quality of paper and type and reproduction of illustrations.

DISEASES OF THE HEART DESCRIBED FOR PRACTITIONERS AND STUDENTS. By Sir Thomas Lewis, Physician in charge of Department of Clinical Research, University College Hospital, London, etc. New York, The Macmillan Company. Price $3.50.

The author is too well known as an outstanding authority on Diseases of the Heart to require any introduction or commendation. The present work is one of Macmillan's monographs on the different phases of medicine, which have become established as erudite, authoritative and practical. The present volume is a clinical outline of diseases of the heart which presents the facts which the student or practitioner is apt to meet in ordinary practice. Emphasis has been placed upon physical signs that are within the immediate reach of all, and upon the common forms of disease. The book is an admirably clear presentation of the subject. It is, however, a work for the general practitioner rather than the specialist in cordial diseases.

CLINICAL DIAGNOSIS, PHYSICAL AND DIFFERENTIAL. By Neuton S. Stern, A.B., M.D. (Harvard), Associate Professor of Tennessee School of Medicine. Price $3.50. The Macmillan Company, New York City, 1933.

This work of over 350 pages was conceived in the classroom as it is the embodiment of the author's experience as a teacher. Among the subjects dealt with are technic of history-taking and physical examination; a section is devoted to the findings associated with tuberculosis and heart disease; a large section is given over to discussion of the necessary steps in making a diagnosis, and finally we have a discussion of symptoms and signs, the mechanisms by which they are caused. The keynote of the book may be had from a few sentences from the Introduction. "Diagnosis is an art. It is an art because it requires thought, reasoning, judgment, a careful balancing of dates, and even, occasionally, something of intuition. Every problem of diagnosis is a problem of research, rather than a pure application of knowledge." In as much as preventive medicine by periodic physical examination is being emphasized by the medical profession a work of the nature of this is particularly timely.

CHRONIC ARTHRITIS AND FIBROSITIS, DIAGNOSIS AND TREATMENT. By Bernard Langdon Wyatt, M.D., F.A.C.P. Baltimore: William Wood and Company, a division of the Williams and Wilkins Company. 1933. Price, $3.50.

This interesting monograph of slightly less than two hundred pages embodies an exhaustive treatment of the subject. The chapters deal with statistics, nomenclature, pathology, etiology, differential diagnosis, the fundamentals of effective therapy together with special therapeutic measures. There are seventeen full page illustrations, radiographic and photographic, which are valuable adjuncts to the text. "The arthritides," quoting from the preface, "lie definitely within the scope of activities of the general practitioner and the internist; their opportunities and responsibilities in connection with these

patients cannot be lightly regarded." Yet how many such cases drift to the cultist. The author's methods are presented fully and clearly so that we have a serviceable book for the general practitioner who sees the majority of the arthritic patients at a time when careful treatment is most effective.

THE ACTION OF THE LIVING CELL, EXPERIMENTAL RESEARCHES IN BIOLOGY. By Fenton B. Turck. New York: Macmillan Co., 1933, Price $3.50.

In this posthumous book the author has summarized the results of forty years of personal research on the causation of shock. This phenomenon which may be induced through mechanical or chemical injury or through exposure to ultra violet radiation or excessive heat is according to Turck a generalized reaction which is initiated by products arising at the site of injury. Necrosis develops at the injured region and the resulting autolysis liberates products, given the name cytost, a word coined by the author, which get to the blood stream. The toxemia due to these products is the cause of the peculiar reaction. This idea supported by a mass of data is an interesting corollary to the current physiological views on the nature of the cardiovascular change in shock.

The author, however, goes farther. He has considered the cytost as a general biological factor which has a regulative character in both the animal and plant organism. This hypothesis, which seems premature but is well worth considering, suggests that the death of cells in the ordinary wear and tear of life liberates cytost and that this cytost either stimulates or depresses body function. This view is derived from experiments which show that small amounts of cytost stimulate functions while large amounts depress—and in extreme conditions give rise to shock.

THE FUNDAMENTALS OF GOOD MEDICAL CARE, AN OUTLINE OF THE FUNDAMENTALS OF GOOD MEDICAL CARE AND AN ESTIMATE OF THE SERVICE REQUIRED TO SUPPLY THE MEDICAL NEEDS OF THE UNITED STATES. By Roger I. Lee, M.D., and Lewis Webster Jones, Ph.D. Price, $2.50. The University of Chicago Press.

This is publication No. 22 of the Committee on the Costs of Medical Care. It is a sane discussion of the subject. Facts and suggestions are presented a knowledge of which will be found of value both by physician and layman. Over half the volume is given over to statistics gleaned and tabulated during the five year period of fact-finding and studies of cross sections of certain areas in the United States. The authors have realized that a solution of the so-called medical problems cannot be arrived at in any set of resolutions that might be devised. "The problem will not solve itself through the operation of undirected economic forces. Some conscious redirection of medical activities is needed, and long-term planning with a clear vision of the objectives to be achieved. The ways and means of achieving these objectives can be discovered only by the process of actual experimentation in particular communities."

DISEASES OF THE EYE. By Hofrat Ernst Fuchs, Former Professor of Ophthalmology in the University of Vienna. Fifth German Edition. Revised by Maximilian Salzman, Professor of Ophthalmology, University of Graz, Austria. Authorized translation by E. V. L. Brown, M.D., Professor of Ophthalmology, University of Chicago. Tenth English Edition. 255 illustrations in text and 41 colored figures. Pages 641. Philadelphia, J. B. Lipincott Company, 1933. Price, $6.50.

To those familiar with this classic on Diseases of the Eye, nothing that any reviewer might say will add to the reputation of the work. The first edition appeared forty-four years ago. The periodic revision to which the work has been subject has served to make it conform with the most approved teaching of the day on the subject. Professor Fuchs died on November 21, 1930. His book is not for the specialist alone; it is intended for the undergraduate as well, therefore it has an appeal to the physician in general practice who sees a large number of eye conditions, particularly in the early stages of the pathology. There are many eye diseases within the scope of the general practice of medicine if the physician will take pains to inform himself regarding them, and in these days it is in his interest as well as that of the patient to undertake all that he has confidence that he can do well. He will find this work on Eye Diseases a valuable aid.

BUDGETING HEALTH*

This is the title of a book which is, in the main, a plea for the organization of medicine into groups or guilds around hospitals to be financed by group payment, by insurance or by public taxation. "It is gratifying," says the author, who is not a physician, "that the Committee has endorsed the broad principles of which the medical guild plan is a specific application. 'Group practice'—the association of general diagnosticians and specialists to render medical service as groups, and 'group payment' —the division of the costs of medical service between the members of large groups of patients in the form of fixed annual payments."

As a sample of the author's argument we have, "The public pays the doctor's bill; the public has, therefore, a legitimate stake in what has come to be called 'medical economics'." We may also add, "the public pays the merchant, therefore, the public has a legitimate stake in the economics of his business, also law, also industry, also banking, also everything else." Yet these vocations feel that they have even a greater stake and would probably resent attempts to control them from the outside. And again, "Imagine a grocer who charged his wealthy customer two dollars a box for breakfast food, gave it away to the poor, and asked from fifty cents to a dollar from his white collar customers for it according to his estimate of what they might be earning at the time." Physicians do not charge the well-to-do to make up for their charity work, as every doctor knows; to do so would not be legal, hence the fallacy of the comparison.

And behold the following: "Imagine the situation applied to the maintenance of one's automobile. There would be no repair shops to which one might take his car to have it repaired for any and every ailment. On one corner there would be a shop where a general mechanic would be ready to locate the trouble, and, possibly, do minor repairs if the difficulty were not too great. But any major repairs would be done by a dozen or so different shops in various parts of town; ignition trouble would be handled by electricians on the west side, engine trouble over on the north. Also each of these different mechanics would keep his own books and act as his own business manager. The car owner would be obliged to go from one to the other—and then possibly back to the general mechanic to have the final check-up."

The analogy would be more apropos, however, were we a nation of robots with each corresponding part uniform. From the attitude of lay magazine articles, some medical economists and social workers would appear to be so, judged by the similarity of their methods of rationalizing and their conclusions. The inference, however, is not borne out

*How to Budget Health Guilds for Doctors and Patients. By Evans Clark, Director Twentieth Century Fund, Ind. Published for the Twentieth Century Fund, Harper and Brothers, Publishers, New York and London, 1933, pages 320.

by the facts. If we were to accept the illustration, the physician in general practice resembles the garage man inasmuch as he cares for practically 90 per cent of his patients (automobiles) without any extraneous assistance and probably does not call in the specialist as often as the garage mechanic calls on the dealer in parts or for assistance. Such being the case, the general practitioner is able to supply medical care efficiently and with far less expense, than were "doctors to operate in groups, using an office building, hospital and other plant facilities in common with a business man for manager and a corps of necessary stenographers and clerks." In order to make such a group or guild pay it would be necessary to adopt a policy of commercialism which would be highly objectionable. During the economic depression it is the so-called big business organizations that have suffered most and through them their employes who have been dismissed at a time they can least afford it. On page eight the author cites the example of the Mayo Clinic. No one questions the wonderful service rendered by the Mayo Clinic. According to the author's reasoning in times like these we would expect the Mayo Clinic to be the largest in its history both in numbers of patients and size of staff. The same of other well known clinics that have long emerged from the experimental state. What are the facts? The large clinic with its tremendous overhead is having an experience not unlike that of any other large organization—the dismissal of members of its staff and retrenchment in other ways.

"But on the economic side the advantages of group practice are even more obvious for doctor and patient alike. Through the joint ownership of plant, equipment, and clerical forces, genuine savings are made in operating costs."

This is answered by a fact of common experience that fewer than 10 per cent of patients require all this implied need for a variety of consultation.

Then we have the matter of "group payment" based on insurance. The reviewer has no objection to insurance; in fact he favors it, but let it be the means of defraying the fees of the independent physician as well as the group of physicians being consulted. Sickness, or, better, health insurance should be used to defray the cost of illness, which cost will be much less with the patient treated in his own home or in the hospital in urgent cases, or for the necessary visits to his physician's office. In times like these where the cost of living makes such heavy demands on one's resources, insurance is becoming less and less the vogue. How many life insurance policies are depleted by loans to the limit and how many have been compelled, through inability to pay the premiums, to allow their insurance to lapse?

And this: "But the guild plan lends itself to consumer control. Either existing groups of consumers such as labor unions, corporations, coöperatives, or societies might institute and operate medical guilds for their members and the public, or new groups might be formed for the purpose."

With the disposition of the medical profession in this and almost every other state in the union to oppose this sort of thing, namely lay control of medicine, as pernicious and detrimental to the interests of both layman and medicine, is any argument required to convince medical readers? Further we have such exaggerated statements as "The currents of development in American medicine have almost all set in the direction of medical guild proposals." Then turning to page 30 we have the following (Italics ours):

"Of the 1,100,000 people producing medical care the most important single group is, obviously, the physicians themselves. It is estimated that 143,000 persons holding the degree of Doctor of Medicine were actively engaged in practice in the United States in 1929. Of these an overwhelming majority —121,000—practice 'privately,' according to the Committee on the Costs of Medical Care. These 121,000 doctors run their own businesses with their own separate offices, plants and equipment, keep their own books and manage their own professional affairs independently of any other doctors or institutions. About 21,000 others hold salaried positions in hospitals and other insttuions *and 1,000 more are members of group practice organizations.*"

When we subtract the number connected with two or three groups of national repute there will be only a small portion of the thousand left, and yet the author contends that the currents of development in American medicine have almost all set in the direction of medical guild or group practice.

The author goes on to quote approvingly the clause from the majority report of the Committee on the Costs of Medical Care to the effect, "The costs of medical care be placed on a periodic payment or insurance basis and that, where necessary, to provide adequate service *tax funds (Italics ours) be used to supplement the periodic payments or to provide needed capital.*" All in the face of the fact that taxation has already become a crushing burden to almost every citizen. As this is written the newspapers of Detroit forecast the closing of some municipal hospitals if financial aid is not forthcoming.

So much for only Chapter I. To answer adequately the pleas for the author's medical guild would require more space than at our disposal. The volume is an amplification of the idea as outlined in the introductory chapter. A real scientific treatment of the subject would have presented both sides and have left the reader to judge as to the merits or demerits of the author's theories.

The reviewer does not wish to be understood as opposed to Budgeting Health or Budgeting for illness, nor does he view with disfavor group practice as it has obtained during the years it has been in vogue to a limited extent in this country where it has been a purely voluntary matter. His opposition is to the efforts, being put forth by propaganda in lay magazine articles and in books, to prevail upon the profession to adopt this or any other method universally. So far we know no adequate unbiased study of group practice in the United States. The Bureau of Medical Economics, however, has under way such a study. The plan is outlined in the February number of the *American Medical Association Bulletin.* The profession will look forward with interest to the findings of this organization.

OF GENERAL MEDICAL AND SURGICAL INTEREST

"NORMAL" CARBON MONOXIDE CONTENT OF BLOOD

Alexander O. Gettler and Marjorie R. Mattice, New York, found that the average content of carbon monoxide in the blood of eighteen persons living in New York City under conditions of minimal exposure was found to be 0.27 volumes per cent. This represents about 1.0 to 1.5 per cent of the hemoglobin combined with carbon monoxide. The average content of carbon monoxide in the blood of twelve persons confined to a state institution in an ideal rural locality was found to be 0.24 volumes per

cent. Most of these showed a hemoglobin saturation of less than 1 per cent. The average content of carbon monoxide in the blood of twelve New York City street cleaners was found to be 0.69 volumes per cent. This represents about 3 per cent saturation of the hemoglobin with carbon monoxide. Two taxicab drivers were found to have on several occasions a carbon monoxide content ranging from 1.47 to 4.33 volumes per cent. This represents a hemoglobin saturation of 8.0 to 19.0 per cent. Tobacco smoking appreciably increases the carbon monoxide in the blood and cannot be ignored in the interpretation of laboratory results.—*Journal A. M. A.*

STUDIES IN ASTHMA XVIII. SURGICAL TREATMENT OF CHRONIC SINUSITIS IN ASTHMA

According to observations made by Francis L. Weille, Boston, 75 per cent of the patients having asthma associated with sinusitis show a favorable local result in the nose following nasal surgery but have only about a 50 per cent chance for relatively long continued favorable changes in their asthma. Six patients having extrinsic asthma were not improved. Surgical improvement of one side of a bilateral pansinusitis may be followed by marked improvement in the patient's asthma. Conversely, an excellent result may be obtained in both sides of a bilateral pansinusitis in some cases of intrinsic asthma without improvement in the asthma. The most favorable cases for surgical improvement in asthma are those with polypi in the nose and sinuses; patients having thickened membrane or cysts in the sinuses are unfavorable subjects for such improvement. Temporary improvement (in six cases) lasting for from one to six months or more (and in one case for two years), even though followed by ultimate recurrence in the asthma, is worth a great deal from the patient's point of view. Indications for sinus operation in asthmatic patients include: 1. Sinus disease demanding surgical treatment on its own merits. 2. Recurrent head colds precipitating asthmatic attacks; the aim of surgery is to lessen the number of such colds. 3. Attempting to interrupt the vicious downward cycle in the very severe case of asthma by attempting to gain even temporary relief. 4. Cases in which removal of polypi or sinus irrigation yields temporary benefit. All data and conclusions are accurate only for the duration of the follow-up period in the forty cases reported.

IMMUNOTRANSFUSION IN SCARLET FEVER

According to J. E. Gordon, Detroit, successful management of early scarlet fever depends on accurate determination of the clinical form of the disease. Proper judgment of the relative seriousness of the infection is a second requisite. Convalescent serum, scarlet fever streptococcus antitoxin and symptomatic measures each have their indications. Immunotransfusion is superior to other methods in the treatment of acute septic scarlet fever, the so-called scarlatina anginosa or scarlatina necroticans. The results in malignant toxic scarlet fever are less favorable than with scarlet fever streptococcus antitoxin. Known specific measures have been uniformly disappointing in the management of late septic complications. Immunotransfusion has perhaps its most important indication in secondary sepsis, general septicemia, septicopyemia and acute bacterial endocarditis of late scarlet fever. It is not alone a hospital procedure but has been successfully used in private practice under home conditions. It has been applied in the management of other infectious diseases, including erysipelas, poliomyelitis, measles and meningococcus meningitis. In the course of five and one-half years, the author has had 13,003 cases of scarlet fever under observation. He used immunotransfusion in 246. The two common indications for its use were early septic scarlet fever and the septicemia associated with late complications. Since the use of immunotransfusion, the fatality rate for the 13,003 patients with scarlet fever has been less than half that for the previous 5,000 cases. For 2,167 cases during 1931, the last year of this experience, the rate was 0.6 per cent.—*Journal A. M. A.*

ROENTGEN STUDIES OF PATIENTS WITH GASTRO-INTESTINAL FOOD ALLERGY

Albert H. Rowe, Oakland, Calif., selected four patients who had marked and prolonged gastric symptoms which were relieved by the elimination of specific foods. He noted the following deviations from the roentgen examinations when the patients were on "elimination diets" which controlled their symptoms when milk or eggs were added to their diets: 1. Gastric retention was observed in each of the four patients. This was marked in three hours and definite in six hours. In one case there was definite evidence of pylorospasm. In the other cases it could have been present to a degree difficult to visualize. In all the cases in which gastro-enterostomy was present, some disturbance in peristalsis interfering with the gastric or intestinal gradient best explains the gastric retention. Such disturbance could be the result of localized or generalized mucosal edema or smooth muscle spasm arising from allergic reactions due to milk or eggs. 2. In each patient, barium was present in the duodenum and jejunum in three and six hours. This was to be expected with the gastric retention and was due to the same causes that were responsible for the residues in the stomach. 3. In one case definite hypermotility was observed in three and six hours. It is impossible to say that this was definitely due to allergy. However, diarrhea is not an infrequent manifestation of food allergy in children and in adults. 4. Spastic colons were observed in three patients. Such spasm could readily be explained by an allergic reaction of the smooth muscle in the colon. It is the author's opinion that constipation is frequently due to food allergy resulting from colonic spasm and that when it is accompanied by a mucosal reaction, mucous colitis or an irritable bowel may result.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII MAY, 1933 No. 5

CONTENTS

Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. III. Digestive Disturbances Produced by Pain and Emotional Excitement. Dr. W. B. Cannon 307

The Importance of Water in the Treatment of Renal Disease. F. S. Lashmet, M.D. 317

Some Facts Concerning the Retinal Vessels in Hypertension. George F. Suker, M.D., F.A.C.S. 319

Acute Cranial and Intra-Cranial Injuries. H. K. Shawan, M.D. 324

Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 331

Editorial:
- An Observer at Lansing 333
- Physicians as Legislators 333
- Laboratory Service 334
- A Tree That Should be Spared 334
- "Nothing in Excess" 334
- An Explanation 334
- The Banking Situation 335
- Specialist 335

Medical Economics:
- The New Deal in Medicine. J. C. S. Battley, M.D. 337

Correspondence 339

Society Activity 340

County Societies 341

Woman's Auxiliary 343

General News and Announcements 346

Deaths 347

The Doctors' Library 348

SOME MODERN EXTENSIONS OF BEAUMONT'S STUDIES ON ALEXIS ST. MARTIN*

III. DIGESTIVE DISTURBANCES PRODUCED BY PAIN AND EMOTIONAL EXCITEMENT

DR. W. B. CANNON

George Higginson Professor of Physiology, Harvard University Medical School

BOSTON, MASSACHUSETTS

In the last lecture I tried to make clear the manner in which the digestive process might become inefficient, because in general bodily atony and debility the cranial division of the autonomic system is involved and fails, therefore, to perform its function of establishing tone in the musculature of the alimentary tract. And I mentioned also a probable corresponding inefficiency in calling forth the digestive secretions. In this lecture I wish to point out another way in which the digestive process may be profoundly disturbed through the positive action of the sympathetic division of the autonomic system, a division which, as we have already seen, is commonly opposed in action to the cranial division and which has, therefore, an inhibitory effect on muscular tone and on the secretions of the digestive glands. I would remind you that the sympathetic division is brought into action by a variety of conditions, prominent among which are pain and great emotional excitement.

The fact that emotional states can upset digestion has long been recognized. Beaumont reported the influence of violent anger upon gastric digestion as observed in Alexis St. Martin. Violent passion, he declared,

*Beaumont lectures delivered before the Wayne County Medical Society, January 31, 1933.

is likely to cause a reflux of bile into the stomach, a change in properties of the chyme, and a retardation or other disturbance of the chyme in its passage onward into the intestine. Similar observations have been made by more recent investigators who have had occasion to study gastric digestion in children whose esophagus has been closed because of inflammation and who, therefore, have had to be fed through a gastric fistula. For example, Hornborg found that when the boy whom he studied chewed agreeable food, there followed a typical psychic secretion of gastric juice. If the boy, however, became vexed and began to cry, the chewing of food was not accompanied by gastric secretion. This observation was confirmed by Bogen, who reported that when the child whom he examined fell into a passion, the giving of food after the child was calmed was for some time not followed by any flow of the juice. These observations on the effects of emotional excitement on gastric secretion are paralleled by corresponding observations on the movements of the stomach. Dr. Joslin has told me of a case that came to his attention. A refined and sensitive woman, who had had digestive difficulties, came with her husband to Boston to be examined. The next morning the woman appeared at the consultant's office an hour after having eaten a test meal. Examination of the gastric contents revealed the presence of a considerable amount of the supper of the previous evening. The explanation of this stagnation of the food in the stomach came from the family doctor, who reported that the husband had made the visit to the city an occasion for becoming uncontrollably intoxicated, and that by his escapades he had given his wife a night of turbulent anxiety. The second morning, after the woman had had a good rest, the gastric contents were again examined and the test breakfast was found to have been normally discharged. Hertz has reported the case of a man of most regular habits who was in a bad railway accident in which he was buried by the wreck of the cars for more than half an hour. He was so deeply affected by the experience that for days his bowels refused to act, although he used all sorts of agents to make them do so. Dr. Alvarez has cited the instance of a young woman, with digestive processes profoundly disordered, whose condition was brought back to normal only after he had paid the tax collector whom the patient, because of her negligence, had occasion to fear. These instances are common enough in the experience of any gastro-enterologist, and probably also in the experience of most general practitioners of medicine. Indeed, the statement has been made that fully 80 per cent of persons who consult physicians because of digestive disorders do so because of some disturbing emotional factor.

Not only emotion but also pain can affect the digestive process. Netschaiev, working in Pavlov's laboratory, showed many years ago that excitation of the sensory fibers in the sciatic nerve for two or three minutes resulted in a checking of the secretion of gastric juice that lasted for several hours. Similarly, in the motor aspects of digestive function, there may be a marked inhibitory effect produced by strong afferent stimulation. One of the most distressing instances of inactivity of the bowel is that seen occasionally after surgical operations on the abdomen. In 1906 Dr. F. T. Murphy and I undertook an analysis of the factors which are concerned in this post-operative inactivity. We found that it might be caused by handling the stomach and intestines; that is, it might be caused by local effects in the wall of the digestive tract, or that it might be produced reflexly. Thus trauma during the standard half hour of etherization (which in itself, I may say, had relatively little influence on the discharge of food from the stomach and its passage through the intestines) actually retarded the exit from the stomach for four or five hours and thereafter caused the discharge to be characteristically slow. The movement through the small intestine was likewise very sluggish. In only one case out of ten did the food reach the colon within six hours, whereas normally it would begin to appear there in about three hours. Of course the trauma in these experiments was performed under anesthesia, when nervous conduction involving reflex pathways is much depressed. No doubt painful experience in the absence of anesthesia would have effects which would be even more pronounced. Indeed, the expression "sickening pain" is testimony to the power of strong sensory stimulation to upset the digestive processes profoundly. Vomiting is as likely to follow violent pain as it is to follow strong emotion.

In the experiments performed by Murphy and myself we found that after severance of

the splanchnic fibers of the sympathetic system the standard trauma resulted in no effect whatever. Indeed, the results observed in such cases compared favorably with those from animals in quite natural conditions. After splanchnic section, likewise, the effects of emotional excitement are no longer noteworthy. There may be some inhibitory action produced by way of the vagus nerves, but vagal impulses are not nearly so efficient in stopping gastric peristalsis or the segmenting movements of the small intestine as are the impulses delivered from sympathetic sources.

Many years ago, when I first noticed that emotional excitement caused inhibition of the movements of the stomach and intestines and learned also that it depressed for a considerable period the action of the digestive glands, it seemed to me that the rational procedure would be to interrupt the sympathetic channels through which these inhibitory effects are produced, in order that so beneficent and so fundamentally important a process as that of digestion should not be interfered with. At that time I did not thoroughly comprehend the organization of the sympathetic system for diffuse distribution of its influence and did not realize how widespread were the effects of its activities. Only gradually, as new evidence came in, did I learn that in addition to the well-known acceleration of the heart and rise of blood pressure that result from emotional disturbance there is a complex of other changes, including redistribution of blood in the body, a discharge of extra corpuscles from the spleen, a more rapid coagulation of the blood, an increase of blood sugar, and a dilation of the bronchioles. If we consider this complex of changes associated with pain and great emotional stress, we perceive that the inhibition of the digestive process is but a single item in the total variegated picture. Only by understanding the significance of the total change can we interpret the disturbance of digestion. I propose, therefore, that we consider now the ways in which the sympathetic system can affect the body.

The best mode of obtaining an insight into the functions of the sympathetic system is by learning the conditions which bring it into action. Prominent among such conditions are external cold, hypoglycemia, motion and emotion.

We are all familiar with one effect of external cold, as seen in domestic mammals and birds. The roughened hair of the horse or the cat and the ruffled feathers of the fowl on a cold morning are indicative of sympathetic action, because the smooth muscle which erects the hairs and feathers is under sympathetic control. Human beings, as highly evolved mammals, have degenerate skin appendages and therefore "goose flesh" is the only obvious manifestation of this effect of cold. If you examine closely the little hummocks of goose flesh you will find standing upright in each one a minute hair. The question arose as to whether this activity of the sympathetic system in response to external cold was associated with discharge of the adrenin from the adrenal medulla. If so, it would be a matter of some importance because adrenin is capable of accelerating the processes of combustion in the body, much as putting a blower on the fire accelerates the burning of the coal. Thus extra heat would be produced in the organism at a time when it would be especially useful. In order to test this possibility we made use of the denervated heart, *i.e.*, severing all connections of the heart with the central nervous system, but leaving the recurrent laryngeal branch of the right vagus to innervate the larynx and the left vagal trunk to care for digestion. The operation, which was of course done with surgical precautions, involved also removal of the upper thoracic sympathetic chains. Animals thus operated upon lived indefinitely in the laboratory in good physical condition. The denervated heart is extraordinarily sensitive to increase of adrenin in the circulation. It beats faster when there is an increase of adrenin by one part in 1,400,000,000 parts of blood. The beat of the heart can be registered simply by holding a receiving tambour against the chest wall and letting the cardiac impulse, as transmitted through a tube to a recording tambour, write its tracing on a smoked surface.

If an animal thus prepared, and quite recovered from the operation, is placed comfortably on a cushion near a window during cold weather the raising of the window results, within a few moments, in a typical erection of the hairs in response to the cold. Associated with this evidence of sympathetic activity there is an increase in the rate of the denervated heart. The increase may amount to 30 or more beats per minute. If the adrenal glands are now inactivated, *i.e.*,

if one is removed and the nerves to the other are severed, so that adrenal secretion can no longer be excited, exposure of the animal to cold in the same manner as before results in no noteworthy increase in the heart rate. Indeed, the rate may actually fall. It is clear, therefore, that the sympathico-adrenal system is stimulated to activity in cool surroundings when the temperature of the body is likely to fall. The erection of hairs serves to enmesh about the body a layer of air which is a poor conductor of heat. Associated with this is a constriction of the surface blood vessels so that the warm blood from the interior of the body is less exposed to the surface, where it would lose heat. By these two procedures heat loss is minimized. The extra discharge of adrenin accelerates the burning process, and thus the temperature of the body is further prevented from falling. If the adrenal glands are inactivated and animals are then subjected to a standard degree of cold, the organism falls back upon shivering as another means of providing the needed extra heat. It is obvious from these considerations that a primary function of the sympathetic is the protection of the body against a lowering of body temperature.

You are all familiar with the fact that if insulin is given in excess there is produced a characteristic state known as the "hypoglycemic reaction," attended by sweating, a faster pulse, and dilation of the pupils. These phenomena are all indicative of activity of the sympathetic system. Again the question arose as to whether the adrenal glands were involved. If so, it was a matter of some importance to determine the fact, because adrenin is effective in liberating sugar from storage from the liver. Thus a condition of hypoglycemia would be rectified by physiological action in a natural manner through discharge of sugar from the hepatic reservoir. Again, it was possible to make use of the denervated heart.

If insulin was given when the adrenal glands were out of action the blood sugar fell continuously, with no increase in the rate of the denervated heart, even though the glycemic percentage was reduced to the convulsive level. It is noteworthy that the drop in the blood-sugar concentration was almost in a straight line, *i.e.*, at almost a uniform rate. When, however, insulin was given with the adrenal glands in place and ready to act, the blood sugar fell only to a certain point—a critical point—whereupon the denervated heart began to beat more rapidly and continued to accelerate as the fall continued further. The acceleration of the denervated heart was, of course, due to discharged adrenin, because it failed to occur when only one factor was lacking, *i.e,* the adrenal glands. As soon as this indication of adrenal discharge appeared it was interesting to observe a check in the fall of blood sugar. This pointed clearly to a liberation of extra sugar from reserves in the liver, for adrenin is known to have that effect. It seemed clear, therefore, that a protective arrangement was at work shielding the organism from the dangers of excessive hypoglycemia.

Good evidence that this protective service was being performed by the sympathico-adrenal system was obtained by selecting a dose of insulin which, in normal animals, barely failed to cause a reduction of blood sugar to the convulsive level. The action of this barely subconvulsive dose was then studied in animals which were deprived of the service of the sympathico-adrenal apparatus by extirpation of one adrenal gland and denervation of the other. The typical effect of this standard dose under these circumstances was to produce convulsive attacks within a relatively short period of time. Further confirmation of this evidence was reported by Macleod and collaborators, who noted that if rabbits had been well fed, so that the liver stores were satisfactorily stocked, a given dose of insulin would cause a fall of blood sugar to a relatively low level, whereupon the glycemic percentage would begin to rise and would be restored to normal. Here is an example of the efficient corrective action of the sympathico-adrenal system. It is obvious that that system acts to protect the body from a disastrously low percentage of blood sugar when conditions are such as to tend to lower it.

I mentioned earlier that both motion and emotion will bring the sympathico-adrenal system into play. The evidence that strong emotion will have that effect is known to everybody. The cat frightened by the dog has hairs standing erect all along its body, from the top of the head to the tip of the tail. The pupils are dilated, the pulse is rapid, and there are internal changes, such as increase of blood sugar and increase of red blood corpuscles (from contraction of the spleen), all of which indicate that the

excitement has caused a discharge of sympathetic impulses. The question again arose as to whether there is a discharge from the adrenal medulla under these circumstances. For many years this question was in controversy. Stewart and Rogoff of Cleveland declared that the discharge of adrenin was steady and uniform, and they refused to accept the evidence that had been adduced to show that adrenal secretion is increased in the blood as a consequence of emotional stress. The denervated heart allowed definite evidence to be obtained on that point, for the animal with heart denervated could be observed any number of times under circumstances experimentally produced before inactivating the adrenals, and could be observed any number of times thereafter under the same circumstances, and the difference in the response of the heart clearly and permanently registered.

When the experiment just described was performed, it was found that not only did strong excitement cause an acceleration of the denervated heart but even minor activity, such as rising from a cushion and walking across the floor, would have that effect. To be sure, slight exercise had only little influence. In one experiment, for example, walking caused an increase of the heart rate by approximately 20 beats a minute. Later, when the animal (a cat) was resting on a cushion and a dog was brought near, and the hairs were erected and the cat hissed in a simple emotional response, there was a larger increase—approximately 40 beats a minute. When now the animal was placed in a cage and the dog was allowed to bark and make aggressive movements so that the cat responded vigorously, the heart rate, as soon as the animal could be removed from the cage and its cardiac impulse registered, manifested an increase of over 70 beats a minute. When this same animal was put through the same series of conditions after inactivation of the adrenal glands, minor exercise caused no increase in the heart rate, simple emotional excitement caused an increase of only 2 beats a minute, and excitement with struggle an increase of approximately 8 beats instead of 72. This increase of 8 beats belongs to another story, for it was the occasion of the discovery of a substance given off from smooth muscle when stimulated through sympathetic channels—a substance which we have given the name "sympathin." From these observations it is clear that both motion and emotion are accompanied by a discharge of adrenin from the adrenal glands and that therefore in these circumstances the sympathico-adrenal system is at work.

That the sympathico-adrenal system is excited to action in profound emotional disturbances, such as fear and rage, and that associated therewith the heart beat is accelerated, the blood pressure is raised, the circulating red blood corpuscles are increased in number, and the blood in the body is redistributed so that it is sent away from the splanchnic area and driven in greater volume through the brain and the muscles; and furthermore, that there is a discharge of sugar from the liver, a hastening of the process of coagulation of the blood, a dilation of the bronchioles, and a pouring-out of sweat—that all these phenomena occur as a consequence of excitement led to the suggestion of the emergency theory of sympathico-adrenal activity. That theory was based on the view that the powerful emotions, fear and rage, are linked with instinctive behavior which may involve supreme muscular effort. Thus the emotion of rage is associated with the instinct to attack, and the emotion of fear is associated with the instinct to run or escape. When under natural conditions enemies confront each other, these two emotions may be supremely aroused and the instincts may develop into a supreme struggle for existence. In this balance between triumph and disaster lies the key for explanation of the bodily changes which accompany great excitement. All the vascular adjustments—the rapid heart, the increased blood pressure (with larger volume of flow through brain and muscles), the increased number of red corpuscles—are useful in supplying a larger delivery of oxygen where supreme activity is likely to be going on, *i.e.*, in the neuromuscular apparatus. The dilation of the bronchioles adjusts the respiratory system to the greater need of an adequate oxygen supply and a larger riddance of carbon dioxide. The sugar freed from storage in the liver gives to the laboring muscles the source of energy which they need for continued action. If in struggle there is damage to blood vessels, faster clotting of the blood helps to check the loss from the body of this most precious fluid.

The foregoing considerations again point to the sympathico-adrenal system as a pro-

tective agency in times of crisis. Associated with the redistribution of blood in the body, a redistribution which involves sending the blood away from the splanchnic area to the active muscles and their nervous governors, there is necessarily a relative anemia of the gastro-intestinal tract. It is under these circumstances that the gastro-intestinal functions are inhibited. We see, therefore, that the disturbances of digestion, which we have been considering, are part of a larger complex of reactions in the organism, which, in the development of higher animal forms, have played an important rôle in the conflicts which have determined survival. At a critical juncture it is appropriate that the digestive process, beneficent though it may be, be set aside temporarily in order that the organism as a whole, by functional readjustments, may have a more favorable chance in meeting the decisive demands of the moment. As I view the conditions which prevail in civilized society, I regard the emotional disturbance of digestion as being induced after the traditional dangers in the long history of our race have largely disappeared. It is rare, indeed, that we are emotionally excited by circumstances which demand supreme muscular effort. We become excited, for example, by watching a game, or by facing an examination, or by learning bads news, *i.e.*, when no struggle is called for. The digestive processes, however, may be quite as much upset by these incidents as if the utmost physical exertion was anticipated. Only by understanding these larger aspects of the response to excitement can we explain to patients what an emotional derangement of digestion means, and how foolish it is to allow the organism to get into fighting trim, with possibly disastrous stoppage of the digestive process, when no fighting is required.

The views which I have just developed have received a more extensive application through recent studies, which have been made on animals from which the sympathetic system has been wholly removed. You will recall that the outlying neurones of this system are arranged in two chains, reaching from the superior cervical ganglion to the pelvis on either side of the spinal column. Long ago Langley and Anderson showed that if the outlying neurones are removed the preganglionic fibers, reaching out from the spinal cord, can not make effective junction with the smooth muscle and glands that are normally innervated by the postganglionic fibers. Removal of the sympathetic chains, therefore, definitely eliminates the sympathetic control of the glandular organs and those managed by smooth muscle.

In our first operations we removed the sympathetic chains in parts,—the cervical, the abdominal and the thoracic. The fault of this method lay in the possibility of overlooking some ganglia in the lower thoracic region behind the attachment of the diaphragm. In our later operations we removed each of the chains intact, an unbroken string of ganglia, from the stellate at the top of the thorax to fused masses in the pelvis. Removal of the stellate ganglion renders unnecessary the extirpation of the cervical ganglia, because the preganglionic fibers of these ganglia pass through the stellate and are therefore interrupted when that ganglion is removed.

The first and most striking fact that appears in an experience with these sympathectomized animals—which, as you recognize, are really new types of organisms in the world—is that they live in the conditions of the laboratory quite normal lives without any serious difficulty. Two such animals were kept in the laboratory for more than three years before they were used for post-mortem examination. They digest their food normally, they gain in weight, they grow to adulthood in a natural manner if the sympathetic is removed when the animal is young, and they have an essentially normal metabolism. Females take their part in the process of reproduction. Males, however, are sterile, because seminal ejaculation is stopped.

The question has been raised as to possible innervation of skeletal muscle by the sympathetic system. Some years ago Hunter and Royle made the assumption that the spastic contraction of skeletal muscle, occurring after cerebral injury, was due to an excessive discharge of sympathetic impulses delivered to the muscle. This view they supported by experiments in which, so they stated, the rigidity of the limbs after removal of the cerebral cortex was present on the normal side but absent on the sympathectomized side. For orthopedic purposes, therefore, they advocated the operation of cutting the rami which carried the sympathetic fibers distributed to the spastic limbs. According to their accounts, there resulted a lessening of the spasticity and a remark-

able improvement in the control of the limbs. Later work by many observers has failed to support the experimental observations of Hunter and Royle. Work done at the Harvard Laboratory by Forbes and others revealed no influence of the sympathetic system on the rigidity that follows decerebration. There was, to be sure, a variation of the rigidity on the two sides of the body dependent upon the position of the head. It seems possible that Hunter and Royle, in their original observations, failed to take this matter into consideration. It is significant that after total removal of the sympathetic system no variation in muscular tone is observable. When one of our animals, from which one abdominal sympathetic chain had been removed for some time, was presented to Dr. Royle for test of its knee jerks, he was unable to distinguish any difference on the two sides which would permit him to judge which side was sympathectomized. The bulk of evidence is opposed to the idea that there is a sympathetic control of tone in skeletal muscle.

If life, growth, metabolism and muscular action are unaffected by sympathectomy, what importance has the sympathico-adrenal system? We can understand better the functions of that system if we spend a few moments considering our two environments. As Claude Bernard pointed out many years ago, we not only have the external environment with which all of us are acquainted—the environment consisting of the agencies in the outer world which affect our sense organs and which we use for our purposes—but also a less well-known internal environment composed of the fluids of the body. All of our living parts, all of the varieties of cells which compose our active organs, are bathed in these fluids—the blood and the lymph. These fluids are the product of the organism itself and are under the control of the organism. It is in the highest degree important that they be kept relatively constant. You are familiar with the fact that if the percentage of blood sugar rises from 100 to above 170 mg. per cent, it escapes from the body through the kidneys. On the other hand, if it falls as low as 45 mg. per cent, convulsions are likely to occur; and a further fall may be associated with coma and death. Again, if the calcium content of the blood, which is normally 10 mg. per cent, rises to 20 mg., the blood becomes so viscous that it will hardly circulate, whereas if it falls from 10 to about 5 mg. per cent convulsions supervene. Similar need for constancy is seen in the relation of acid and base in the blood. If the pH, which is normally about 7.4, falls to 6.95—a very slight change—coma appears; and if it rises from 7.4 to 7.7 there are convulsive attacks. Analogous limits of temperature variation are imposed on warm-blooded animals. The body temperature cannot remain long at 108° or 109° F. without causing irreversible changes in delicate nerve structures of the brain; and although the temperature may fall from approximately 98° to 75° F. without causing death, that low temperature is incompatible with bodily activity. These extreme variations which I have mentioned are ordinarily not permitted. When shifts occur in either direction above or below the normal they are, of course, to some degree shifts in the direction of excess, but long before the excess is reached devices are set at work which prevent the extreme stage from being reached. I have already illustrated the protective arrangements provided in the sympathico-adrenal system, when there is constriction of surface vessels and discharge of adrenin if the temperature tends to fall, when there is liberation of sugar from the liver if the blood-sugar level is reduced beyond a critical point, and when the circulation is accelerated so that extra oxygen is delivered and excess of carbon dioxide is carried off if muscular exertion is vigorous. It is clear that the sympathico-adrenal system offers an automatic stabilizing device for maintaining uniformity of the internal environment. And just insofar as this internal environment, or fluid matrix, in which our living parts reside is kept uniform, we are freed from the limiting effects of both external and internal changes.

Further evidence of the importance of the sympathico-adrenal system in maintaining constancy of the internal environment is found in the characteristic behavior of sympathectomized animals when they are subjected to conditions of stress. When such animals are exposed to cold the hairs are not erected. Also the peripheral blood vessels are not constricted, and therefore the body heat is poorly conserved. The secretion of adrenin, which, as we have learned, is use-

ful in accelerating the metabolic rate so that there is increased production of heat, does not occur. For these reasons you would expect that exposure of these animals to cold would reveal their deficiencies. As a matter of fact, it does so. When such animals are placed in a cold room the body temperature promptly begins to fall. Exposure of normal animals to the same low temperature has no such effect. The body temperature of sympathectomized animals drops perhaps 2 or 3° C., and then by shivering they are usually capable of preventing a further drop to a lower level. This deficiency in temperature regulation does not ordinarly manifest itself because the animals live in the warm rooms of the laboratory during the winter months and are therefore not subjected to exacting conditions. It is noteworthy, however, that when they can do so they resort to radiators and other sources of warmth much more frequently than do normal animals.

Not only are the sympathectomized animals sensitive to cold; they are also sensitive to heat. In order to prove whether an animal that takes the upright position could withstand removal of the sympathetic system, the operation was performed on a monkey. When on a warm June morning this animal was placed with some other monkeys in the yard in order that they might enjoy fresh air and sunlight, it was soon found that the animal that had been operated upon was in collapse, with a high temperature. Indeed, the animal died of heat stroke. We depend on the sympathetic system not only to protect us against heat loss but also against high temperature.

When sympathectomized animals are emotionally excited there is no rise of blood sugar, instead of the usual rise of over 30 per cent. The blood pressure instead of being elevated is actually depressed by excitement and struggle, and the emotional polycythemia which occurs in consequence of contraction of the spleen is wholly lacking. It is clear that these changes, which, as we have learned, may be regarded as preparations for action, would not occur when action itself took place. There would be no redistribution of blood in the body, a fall of blood pressure instead of a rise, only a slightly increased heart rate (resulting from diminished vagal tone), and no blood sugar for continued activity. Under such circumstances we should expect a very considerable reduction in the capacity of the animal to work. Actual observations on a dog trained to run in a tread mill until exhausted proved that sympathectomy greatly reduced the capacity of the animal to perform.

The facts which we have just reviewed bring out emphatically the functioning of the sympathetic division in maintaining constancy of the internal environment. If this internal environment were not kept constant in cold weather, for example, we, like lower animals such as the frog, or like mammals which have not adequate control of their body temperature, should have to become inactive in hibernation. We are rendered independent of such external changes of temperature by the functioning of the sympathetic division as a protector of the constancy of the fluid matrix. This division likewise renders us independent of possible disturbances which might be caused by our own actions. In muscular struggle, for example, sugar is used up, and were it not for the service of the sympathetic in liberating extra sugar from storage we should soon suffer from hypoglycemia in consequence of muscular effort. Furthermore, when we engage in vigorous physical struggle heat is produced in excess. Indeed, so much heat results from maximal muscular contraction that at the end of three miles of a boat race the oarsmen, if they could not be rid of the heat, would be stiff in coagulation—you will please pardon the incongruity! Of course, this condition is not even approached, because, through operation of the sympathetic system, the surface blood vessels dilate, and sweat is poured out, and thus the extra heat is dissipated. Again, vigorous physical struggle develops a large quantity of lactic acid. The amount thus produced would easily overwhelm the alkaline buffer in the blood if that were the only protection against the development of an acid reaction. The dangers which might result from the shift to an acid reaction are obviated, as we have seen, by acceleration of the heart, contraction of the splanchnic blood vessels and discharge of stored corpuscles from the spleen, all of which changes are managed by the sympathetic system, and all of which are directed towards delivery of additional oxygen to the active organs, the burning there of the non-volatile lactic acid to volatile carbon dioxide and water, and the carriage of the carbon dioxide to the lungs for discharge from the body.

Associated with violent effort and simultaneous coöperation of the sympathico-adrenal system there is, as we now can readily understand, a disturbance of the digestive organs. As Beaumont noted, "severe and fatiguing exercise retards digestion." He offers two reasons for this effect: "the debility which follows hard labor of which the stomach partakes; and the depressed temperature of the system, consequent upon perspiration, and evaporation from the surface." In the light of our present understanding we should attribute the "debility which follows hard labor" to a lack of tone in the digestive organs because of the participation of vagus functions in the general bodily exhaustion. Although we should not lay so much stress on the "depressed temperature of the system" because of perspiration and the evaporation of sweat from the skin, we should today recognize that it is the diffuse influence of the sympathetic system, causing not only the outpouring of sweat but also the inhibition of gastric and intestinal activities, that would account for digestive derangement in severe exercise.

We are now in a position to understand fully why removal of sympathetic influences, in order to avoid a disturbance of digestion, would be an irrational procedure. Since this system has as its primary function the maintaining of constancy of the fluid matrix, any change lessening its influence would equally diminish its effectiveness in carrying on that essential function.

We are also in a position now to understand more fully how persistent emotions may interfere with the beneficent services of the gastro-intestinal tract to the organism. As we have already seen, the changes accompanying emotional excitement are similar to those which occur in times of vigorous effort. They have been interpreted, therefore, as preparations for such effort. If the emotion is transformed into action, then the preparation is useful, and the body by anticipation is protected against a low blood sugar, an excessive heat, and a limiting shift in the direction of acidity of the blood. If no action succeeds the excitement, however, and the emotional stress—even worry or anxiety—persists, then the bodily changes due to the stress are not a preparatory safeguard against disturbance of the fluid matrix but may be in themselves profoundly upsetting to the organism as a whole. Woodyatt has described a man with diabetes who was being carefully observed under rigorous conditions in a hospital and who had no glycosuria. Suddenly one day, without alteration of his regimen, there was a large discharge of sugar in the urine. Inquiry revealed that he had just learned from the firm which he had served for many years that he had been discharged. The worry and anxiety under these circumstances were the occasion for a marked exacerbation of his pathology. Cabot has cited the case of a man in a hospital with a broken leg. His nutrition was strangely and inexplicably defective and the leg was slow in healing. At last it was learned that he had been worrying about the condition of his family. When he was reassured regarding their state, his digestive and assimilative processes were soon restored to normal and the healing rapidly progressed.

Like other involuntary functions it is possible to condition emotional reactions. You are probably familiar with the experiments of Pavlov, who showed that when two stimuli—one of them a natural stimulus such as acid or food in the mouth for the flow of saliva, and the other an indifferent stimulus such as the ringing of a bell—act simultaneously, there will occur, after the coincidence has been many times repeated, a flow of saliva in consequence of the ringing of the bell, *i.e.*, when the indifferent stimulus alone is acting. There may be a similar relationship developed between significant and indifferent factors in disturbances caused by emotional experience. The circumstances which attended the original occasion for the emotional upset may cause a recurrence of the upset. I well recall in my own experience an incident of digestive distress which was associated with eating food seasoned with mayonnaise dressing. For weeks thereafter the sight or odor of that sort of dressing brought back in a very disagreeable form the original experience, although the dressing as such had nothing to do with the original disturbance. Doubtless many of you will recall similar instances to which you could refer.

What do these considerations of the influence of emotions on digestion suggest in the way of practical advice? It seems to me that inasmuch as we now understand that the total complex of bodily changes associated with emotional excitement are properly interpreted as preparation for struggle, we should attempt to take a rational attitude

towards any exciting incident which may occur. We should decide that if there is action to be engaged in, the excitement should be allowed to run its full course without limitation. If there is nothing to be done in the circumstances, however, it is obviously unwise to permit the organism to be deeply disturbed and especially the fundamentally important functions of digestion to be inhibited. You may object that emotional excitement is not under voluntary control and that therefore we cannot check its course. I can testify from personal experience, however, that since I have come to understand the function of the strong emotions and have realized the widespread and profound perturbations which they may uselessly cause in the body, I have been able to take a rational attitude which has minimized the extent of their influence.

Another suggestion which may be offered is that when an occasion arises which provokes a degree of excitement that cannot be controlled, the reasonable behavior is that of working off in hard physical labor the bodily changes which have occurred in preparation for vigorous effort. Often the excited state can thus be reduced and the body, instead of being upset, is restored to normal.

In concluding this series of lectures I wish to tell you how deeply grateful I am that you gave me the privilege of celebrating with you the centenary of the culmination of Beaumont's studies. I have shared with you an admiration for the spirit in which he carried on his investigations, and I have rejoiced that I could take part with you in this memorial to his achievement.

REFERENCES

Beaumont, W.: Experiments and Observations on the Gastric Juice and the Physiology of Digestion. Plattsburgh, 1833.

Bernard, C. Les Phénomènes de la Vie. Paris, 1878.

Bogen, H.: Experimentelle Untersuchungen über psychische und associative Magensaftsekretion beim Menschen. Arch. f. d. ges. Physiol., 1907, cxvii, 156.

Cabot, R. C. Religion and Health. Harvard Alumni Bulletin, 1925, xxviii, 384.

Cannon, W. B., and F. T. Murphy. The Movements of the Stomach and Intestines in Some Surgical Conditions. Ann. Surg., 1906, xliii, 512; Physiologic Observations on Experimentally Produced Ileus. Jour. A. M. A., 1907, xlix, 840.

Cannon, W. B., H. F. Newton, E. M. Bright, V. Menkin and R. M. Moore. Some Aspects of the Physiology of Animals Surviving Complete Exclusion of Sympathetic Nerve Impulses. Ibid., 1929, lxxxix, 84.

Cannon, W. B.: Bodily Changes in Pain, Hunger, Fear and Rage. Second Edition, New York, 1929.

Cannon, W. B. Organization for Physiological Homeostasis. Physiol. Rev., 1929, ix, 399.

Cannon, W. B. The Wisdom of the Body. New York, 1932.

Forbes, A., W. B. Cannon, J. O'Connor, A. McH. Hopkins and R. H. Miller. Muscular Rigidity with and without Sympathetic Innervation. Arch. Surg., 1926, xiii, 303.

Hertz, A. F.: Constipation and Allied Intestinal Disorders. London, 1909.

Hornborg, A. F.: Beitrage zur Kenntniss der Absonderungsbedingungen des Magensaftes beim Menschen. Skand. Arch. f. Physiol., 1904, xv. 248.

Hunter, J. I. The Influence of the Sympathetic Nervous System in the Genesis of the Rigidity of Striated Muscle in Spastic Paralysis. Surg., Gynecol. and Obstet., 1924, xxxix, 721.

Langley, J. N., and H. K. Anderson. The Union of Different Kinds of Nerve Fibers. Jour. Physiol., 1904, xxxi, 365.

McCormick, N. A., J. J. R. Macleod, E. C. Noble and K. O'Brien. The Influence of the Nutritional Condition of the Animal on the Hypoglycemia Produced by Insulin. Jour. Physiol., 1923, lvii, 224.

Pavlov, I. V.: The Work of the Digestive Glands. London, 1902, p. 56.

Pavlov, I. P. Lectures on Conditioned Reflexes. New York, 1928.

Royle, N. D.: Treatment of Spastic Paralysis by Sympathetic Ramisection. Surg., Gynecol. and Obstet., 1924, xxxix, 701.

Stewart, G. N., and J. M. Rogoff. The Alleged Relation of the Epinephrin Secretion of the Adrenals to Certain Experimental Hyperglycemias. Am. Jour. Physiol., 1917, xliv, 543.

Woodyatt, R. T. Psychic and Emotional Factors in General Diagnosis and Treatment. Jour. Am. Med. Assn., 1927, lxxxix, 1013.

CYSTINE NEPHROLITHIASIS

According to George H. Ewell, Madison, Wis., cystine nephrolithiasis occurs as a complication of cystinuria, the latter in all probability being due to an error in metabolism with a definite hereditary tendency. Calculus formation is dependent on different factors, such as stasis and infection. Cystine nephrolithiasis should be suspected in all cases of recurrent renal calculi, and the calculi and urine should be examined chemically for cystine. If a cystine calculus is found or cystinuria is demonstrated, the patient should be put on a low protein diet, proteins with a high cystine content being avoided, and the urine should be rendered alkaline by the internal administration of alkalis. In two of the author's cases, after three months of such management the disappearance of sandy particles of cystine and crystals from the urine was noted, with a decrease in the cystine content of the urine. Crystals promptly returned after the resumption of a general diet and discontinuance of the alkali. The possibility of the formation of phosphatic calculi from the intake of alkali should be borne in mind. In one case no conclusions are warranted. In another case the formation of calculi was not prevented after several months of apparently the same management.—*Journal A. M. A.*

THE IMPORTANCE OF WATER IN THE TREATMENT OF RENAL DISEASE

F. H. LASHMET, M.D.†
Department of Internal Medicine, University of Michigan Hospital
ANN ARBOR, MICHIGAN

Twenty-five years ago, Frederick C. Shattuck, Professor of Medicine at the Harvard Medical School, observed that nephritic patients did very poorly under hospital treatment. He had noted that prior to admission the patients seemed quite comfortable and death had not been imminent. But soon after admission most patients promptly died. One of his frequently repeated questions to his intern at that time, Dr. Newburgh, was, "What is wrong with our treatment which obviously makes the patient worse?"

In those days the standard treatment was to allow a low protein, salt-poor diet and to restrict fluids. In addition, purging was done to favor elimination by the bowels and pilocarpine sweats for elimination by the skin were instituted. If this treatment did not seem adequate, and edema was present, the patient was put in an oven and literally "baked" until sweating was profuse. In a few days anuria developed and uremia threatened. If twitchings and convulsions appeared, fluids were then forced. Occasionally a patient survived, more often expired.

Today, after twenty-five years, we have abandoned the ovens and pilocarpine sweats. But no sooner is the diagnosis of nephritis made than water intake is restricted and purging often begun. Under such treatment the experience is practically the same as it was in Doctor Shattuck's time. Perhaps the patients do not die so promptly now as then, but we are still faced with the same fact that they usually do better before admission to the hospital than after.

There is at least one striking difference between hospital treatment and that before admission. The great majority of patients will give a history of having taken large amounts of water when left to their own desires.

The purpose of this investigation was to determine the effect of both water restriction and of liberal intake on the excretion of waste products by the kidney. Normal individuals and those with various types of renal disease were studied. During both the period of water restriction and liberal water intake, urine was collected for twenty-four hours after a preliminary ten hours fast. During the period of urine collection a very definite and constant diet was taken, thus assuring a constant intake of solids.

During the water restriction period, the total water available from all sources was only 700 c.c. per twenty-hours. Under these conditions it was found that normal kidneys are able to concentrate the urine to a specific gravity of 1.029 or above, while diseased kidneys cannot. The lower the concentrating ability is, the greater the renal damage. This confirmed previous observations regarding the index of the specific gravity of the urine to kidney function.[1, 2] By being able to concentrate the urine, it was further found that normal individuals under these conditions of water restriction excrete 450 c.c. of urine per twenty-four hours in which there were about 33 grams of total waste products (Table I).

TABLE I

Concentrating Ability Specific Gravity	No. of Cases	Grams per 24 hours	
		Urine Water	Urine Solids
Normal			
1.029 – 1.032	8	456	32.95
Abnormal	Group A	No Nephrotic Edema	
1.025 – 1.029	4	594	34.94
1.020 – 1.025	7	713	41.22
1.015 – 1.020	5	971	39.81
1.010 – 1.015	4	1355	32.69
Abnormal	Group B	Nephrotic Edema	
1.0203		247	13.82
1.0096		845	18.89

Under the same conditions of water restriction, individuals with renal disease responded differently. In fact, two distinctly different responses were noted. The critical factor which determined the type of re-

†Dr. Lashmet is assistant professor, Department of Internal Medicine, University of Michigan Hospital. He is a graduate of the University of Michigan Medical School, 1927. His special interest is diseases of metabolism.

sponse was the presence or absence of nephrotic edema. In Table I, Group A are those individuals having renal disease but no nephrotic edema. This group included chronic nephritics who had never had edema or from whom it had disappeared, chronic nephritis with hypertension, essential hypertension with mild renal involvement, pyelonephritis, and renal tuberculosis. In Group B, Table I, are those having chronic nephritis with nephrotic edema present.

It will be noticed in Group A that as the renal damage is more severe (as indicated by the specific gravity) there is a greater volume of urine excreted. Along with this greater urine volume there is a normal amount of urinary wastes. It appears that, as the concentrating ability of the kidneys decreases, an increased volume output makes compensation, and a normal excretion of urinary wastes is maintained.

The subjects in Group A received the same water intake as the normal group yet excreted a larger volume of urine. Obviously this extra water must have come from the body tissues. Apparently the process of excretion of waste products in renal disease is fundamentally one which avoids the retention of solids by increasing the water output as a compensation for a low concentrating ability. If the ingested water is too small for this purpose, extra water will be obtained at the expense of body water.

In Group B, those with nephrotic edema present, a different response is noted. In the first place the volume of urine excreted is not as great as would be expected for their respective concentrating abilities. Along with the small urine volume there is a corresponding small excretion of urinary wastes. One might say on first thought that in this particular disease the small water and solid excretion is accounted for by the inability of the kidneys to excrete these substances. But, as will be shown later, these kidneys could excrete both water and urinary wastes in the normal fashion. The only alternative left is that in this particular disease water is so firmly held in the tissues that it is not released. The source of extra urine water as a compensation for a low concentrating ability is shut off, the urine volume is small, and with it there is a retention of waste products.

The next procedure was to keep all conditions the same as during the period of water restriction except to allow water as desired. In Table II it will be noted that when water was allowed there was no striking increase in the solid excretion of the normal group. Cases 30 and 26 are presented as typical of the groups without nephrotic edema and with nephrotic edema respectively. Case 30, without edema, increased both the water and solid excretion with an increased water ingestion. Significantly enough, Case 26 with marked edema likewise increased enormously both the water output and urinary waste elimination. This is striking evidence that nephrotic edema is not primarily due to the inability of the kidneys to excrete water and waste products. Furthermore, the retention of wastes in the presence of nephrotic edema must be attributed solely to inadequate water intake. Even in the presence of edema, a large water intake is indicated as the only hope of avoiding retention of waste products.

TABLE II

Case	Diagnosis	Part A Water Restricted		Part B Water as Desired	
		Gms. per hr.		Gms. per hr.	
		Urine Water	Urine Solids	Urine Water	Urine Solids
	Normal	20.86	1.445	36.55	1.545
30	Chronic Neph. with hypertension No edema	75.16	1.375	205.10	1.572
26	Chr. parench. Nephritis Edema marked	8.78	0.505	164.50	1.445

SUMMARY

Individuals with various types of renal disease were subjected to conditions of extreme water restriction (700 c.c. per twenty-four hours). It was found that when the nephrotic type of edema was absent, a large volume of urine was excreted in which there was a normal amount of excretory wastes. The extra water was obtained at the expense of body water. When the nephrotic type of edema was present, there was a small volume of urine and retention of excretory wastes. Presumably, the body water was so firmly fixed in the tissues that it was not released for urine formation.

When water was allowed, both groups responded with a large volume of urine and an increased excretion of waste products.

In renal disease, regardless of the type and whether edema is present or absent, an enormous fluid intake is imperative if retention of wastes is to be avoided.[3]

REFERENCES

1. Lashmet, F. H., and Newburgh, L. H.: J. A. M. A., 94:1883, 1930.
2. Ibid: 99:1396, 1932.
3. Lashmet, F. H., and Newburgh, L. H.: J. Clin. Invest, 11:1003, 1932.

SOME FACTS CONCERNING THE RETINAL VESSELS IN HYPERTENSION*

GEORGE F. SUKER, M.D., F.A.C.S.
CHICAGO, ILLINOIS

The subject matter of this paper is based upon the findings and deductions made in examination for many years of a very large number of hypertension cases, either the so-called essential hypertension or that associated with cardio-renal complications. The latter too often were the primary lesions and the hypertension an initial or secondary accompaniment. All cases were patients in the Cook County Hospital.

The deductions and observations made from this large clinical material do not differ from those made by other ophthalmic clinicians, but it adds to the profound value of a careful scrutiny of the fundus oculi in all patients who have any cardio-renal or vascular lesion.

The ages of the patients ranged from fifteen to eighty years, about equally divided as to sex. Many of the cases were parturient women, before and after labor. A goodly number were patients with frank or suspected brain tumor or abscess. In quite a few an anemia was the primary cause calling for a fundus examination. Yet in this variety of pathology, the principal underlying facts relative to hypertension hold true, and the fundus picture ascribable to hypertension varies scarcely an iota.

In by far the major portion did the fundus findings foretell the probable lesion, and confirmed or aided materially in the differential diagnosis as well as being of a certain prognostic import. Especially was the determination of the retinal vessel tension significant in increased intracranial pressure, with or without choked disc.

Volhard, and recently Kahler and Sallman of Vienna, have definitely shown that arterial hypertension is the underlying basic cause for the retinitis nephritica. The kidney function may be normal, but in a certain percentage of cases, especially in certain types of nephritic cases, there is a circulating toxin, which cannot engender the retinitis in the absence of hypertension (Schieck[15]).

Raad[14] recently has proven that the nitrogen retention (ammonia compounds) is perhaps the specific toxin which, in addition to the hypertension, is what causes the retinal edema, disc edema, and the retinitis. We know that ammonia compounds are a potent cell poison and destroyer. And, in these nephritics, the retina is bathed in this retention ammonia compound.

On the other hand, a systemic hypertension may be absent in some nephritis, but there is a local (fundus) blood stasis in such cases in which the nephritic retinitis develops. In this class of cases there is a hypertension limited to the retinal vessels, not accompanied by intraocular hypertension. Neither hyper- nor hypo-intraocular tension are factors in themselves, for the production of intraocular hemorrhaghes. In a series of various primary anemia patients with relative low blood pressure, no intraocular hemorrhages occurred, while in a corresponding series of primary anemias, with relative high blood pressure, intraocular hemorrhages did occur. This particular phase of intraocular blood pressure and systemic blood pressure in the anemias is a study that is now being carried on at the Cook County Hospital, and a report thereon is forthcoming (Suker and Bellows).

A rise in the diastolic pressure in the retinal arteries, even in the absence of choked disc, indicates also an increased intracranial pressure. This fact has been established by Bailliart. And, I have on many

*Read before the Section on Ophthalmology of the Michigan State Medical Society, Kalamazoo, September 14, 1932. A series of twenty-four lantern slides of the fundus of hypertension cases illustrated the paper.

An acknowledgment is made of the assistance of my associates, Drs. B. Cushman and M. Jacobson, and the ophthalmic resident interne of Cook County Hospital, Chicago.

occasions verified this in my service at the Cook County Hospital. Very frequently in brain tumor cases increased intraocular vessel hypertension precedes the appearance of the choked disc. In these cases the intraocular vessel hypertension is not constant but variable, which fact may account for the delayed appearance of the choked disc. When the choked disc is developed, then the intraocular and intracranial hypertension are on a par and more or less constant. Variation in this intraocular vessel hypertension produces a variance in the amount of the choked disc.

Arteriosclerosis without hypertension does not cause retinal hemorrhages. This is rather axiomatic, but clinically a constant observation. Personally, in the hundreds of arteriosclerotics, with or without other cardio-nephritic complications, that I have seen in Cook County Hospital, substantially verifies this assertion. This observation is also in conformity with the views of Lange, Wessely and Lian. Geraldi[7] has the same view. In this class of cases, heredity is more than a seeming coincidence. Many cases show an equilibrium disturbance in the neuro-vegetative system and also in the hemoral metabolism, such as hyperglycemia and hypercholesteremia. The blood calcium content is diminished, almost in every instance.

An endocrine disturbance is not to be disregarded in this class of arteriosclerosis without hypertension. The fundus vessels show no lesions unless hypertension is also present.

To further accentuate the usefulness of a fundus examination with red free light, Heider's[8] examination of 300 cases of hypertension with and without kidney complications shows a close relationship between the fundus vessel changes and the kidney lesion. He was able to correctly diagnose the systemic lesion in 80 per cent; in 10 per cent not quite an accurate diagnosis was made, while in the remaining 10 per cent an incorrect diagnosis was made. I do not regard this statement in the slightest as an exaggeration, as my internes and myself have closely approached these figures in our examination of cases in the wards at the Cook County Hospital.

Heider, as well as myself, has accepted Volhard's classification in hypertension and nephritic cases, namely,

Genuine vessel disease, *i.e.,* (1) essential hyperpiesis and malignant sclerosis, and (2) primary kidney disease. There is a passive reflex mechanism in the blood pressure rise in the essential hypertonia, and an active hemotoxic mechanism in the malignant sclerosis in the acute and chronic nephritis, lead poisoning, and in the kidney of pregnancy.

In the essential hypertonia, the fundus veins are turgid, of moderate caliber variations, often distinct corkscrew veins in the macular area, which become less and less in the moderate sized veins and disappear entirely in the large ones. The arteries are usually of normal caliber, though occasionally narrowed, seldom tortuous. There is never an alternating contraction and dilatation. Compression of veins by the arteries is always present, and many times there is a moderate peripapillary edema. There is frequent pigmentary disturbance in the macula. There seldom is an extensive edema of the retina, but frequently small, discrete hemorrhages, and occasionally a thrombosis.

In malignant sclerosis the large retinal veins are often narrow and are only broad in association with cardiac decompensation. Marked venous stasis is present when there is increased spinal fluid pressure in association with papilledema. The macular veins are never as distended as in essential hypertonia, while the smaller veins are frequently narrow. In young subjects this macular vessel change is not present. But, the large arteries are decidedly narrowed and the small ones difficult to locate or follow, even in the absence of the frequent retinal edema. There are marked changes in arterial vessel caliber proceeding as far as actual obliteration, and always marked vein compression by a crossing artery. A prominent feature of malignant sclerosis is the widespread narrowing of both veins and arteries, especially of the smaller vessels. There is an accompanying edema of the disc and retina, fresh and old hemorrhages scattered throughout the retina; partial or complete thrombosis is not uncommon. In such cases one must not overlook the fact that we are dealing with a genuine type of kidney sclerosis. It is often difficult to differentiate between a malignant sclerosis and a chronic nephritis, but in the former the macular venous tortuosities are much more obvious than in the latter.

In considering the systemic development of hypertension, the small arteries and veins

must be carefully considered and evaluated, hence a scrutinizing ophthalmoscopic examination is the prime essential consideration. The character and distribution of retinal vessels, large and small, and their pressure in relation to the general systemic blood pressure, is an important finding. The changes in their caliber and the regularity in course, or tortuosity and association with fundus edema must be noted. The normal or abnormal structure of the vessel walls, and the presence or absence of various types of fundus hemorrhages, whether recurrent, single or multiple, and if along the vessel walls, discretely or promiscuously distributed in the retinal or chorioid is not to be overlooked. The changes produced in the vessels by sclerosis, and their relative position, whether deep or superficial in the retina, whether corkscrew, and whether the blood current is wide, narrow, regular or intermittent, are observations to be carefully noted. The presence of pronounced arterial and venous pulsation in retina, even the intensity of color, which has a bearing on the general tone of the fundus hue, and the shape of the vessels, ribbon-like or tubular, must be noted. Whether the vessels show thrombosis, new blood vessels or aneurysms, and if there are vessel transudates or corpuscular diapedesis, and if there is accompanying retinal pigment migration are to be noted

Any one or several of these numerous clinical fundus findings should impel one to make a scrutinizing systemic investigation of the cardiovascular renal status, as well as the possible presence or absence of intracranial complications.

In toxic hyperpiesis, structural changes in the vessel walls causes an early narrowing with an increase in the white stripes. This is an extremely early vascular change. The veins are much thickened and markedly tortuous, which is not so marked as in cases of primary hyperpiesis. While stripes along the arteries and marked compression of veins by arteries is perhaps almost a pathognomonic sign of toxic hyperpiesis. These white lines along the vessel wall are due to sclerosis of the tunica perivascularis; the greater the sclerosis, the more accentuated the lines.

Guist[9] demonstrates two types of vascular changes in the retina in hyperiesis, coinciding with the classification of hypertension into primary and toxic; in the former the vessels are essentially normal and in the latter both vessel systems are markedly affected.

In primary hyperpiesis the corkscrew tortuosity of the small veins is pronounced, as they are the first to yield to the pressure, because of their thin walls.

The retinal function is well preserved even in the face of marked arterial degeneration. The so-called Leber's spot in the macular area is always the result of retinal vessel hypertension, and is, according to Bailliart,[10] quite diagnostic of Azotemic nephritis. Bailliart considers the circulating pathology as the etiology of renal retinitis, and that retinal hemorrhages, papilledema and retinal exudates result from the nephritis.

It seems to me, however, that an unknown toxin in nephritis is a further factor in the production of the retinitis. This particular toxin is absent in the simple hypertension cases. The kidney is not involved early in the simple hyperpiesis, though eventually it usually will be. In renal retinitis or toxic retinitis, the nephritis precedes the retinitis, or both may develop simultaneously when the toxin accentuates or aggravates the condition.

In the idiopathic hyperpiesis the retinal blood pressure is not correlated to the general pressure and is usually 0.45 to 0.5 of the brachial diastolic. In the nephritic it is as high as 0.7 and even higher.

It is a grave symptom when the retinal blood pressure greatly exceeds the systemic diastolic pressure, even when the ordinary manifestations of renal retinitis are wanting. In these cases the retinal hypertension denotes also an increased intracranial pressure.

Increased retinal arterial tension, therefore, is of diagnostic and prognostic import and aids in differentiating between renal retinitis and idiopathic hyperpietic retinitis.

Bailliart[14] is not certain whether the arterial obliteration causes the hypertension or whether the latter causes the former. From my observations I should say that both go hand in hand. The small arteries are early, either wholly or partially obliterated in every case of hypertension. It is to be noted that arteriosclerosis can and does exist without vascular hypertension, but the reverse does not hold true, and yet, in most instances retinal arteriosclerosis is caused by hypertension.

In cases of arteriosclerotics who complain of headaches and vertigo or simple dizzi-

ness, the sclerotic retinal vessels bespeak the same process within the brain. This sclerosis of the retinal vessels in such cases does not signify that there should be any retinal hemorrhages, thrombus or embolus, neither does it mean the interference of vision or the possible presence of optic neuritis or simple disc edema. But it does point to the fact that these cases of hypertonia are apt to pass on to the grave form of hypertension with its possible cardio-renal involvement, beyond the usual minor cardiac derangements, which are more or less an accompanying symptom in arteriosclerosis.

In primary hypertension, the course of the large retinal arteries as a rule is not altered, but in the very final stages there is some narrowing, with accompanying light streak and moderate tortuosity. The small arteries are unchanged in their course, yet they are so thin as to be scarcely observable.

The veins are the main diagnostic feature. In the early stage the large veins are scarcely altered, while the smaller ones are corkscrew. In the later stage the large veins are somewhat tortuous and broadened, the small ones markedly twisted and broader than normal. The vessel compression of vein by artery is rather frequent in most cases. Choked disc and hemorrhages are not accompanying lesions and are of little diagnostic import.

In the toxic hypertension, the arteries are usually accompanied by light streaks. Their walls are thickened and volume of blood seemingly decreased. The small arteries are faintly visible. The large and small veins are tortuous but never corkscrew.

The difference in the tortuosity of the small veins is a differential sign between primary and toxic hypertension.

In the toxic hypertension all vessel walls suffer changes, especially the small peripheral ones in the retina and chorioid, while the most noticeable vessel wall changes are seen on the disc.

Without further detailing many more important clinical facts relating to the fundus vessels and types of hypertension, the following rather terse sentences will suffice for a summary and conclusion:

AXIOMS IN HYPERTENSION—CLINICAL AND SYMPTOMATIC

1. Hypertension in the young is very rare as a whole.
2. Retinal hemorrhages, thrombosis and embolism in the young are rare.
3. Systolic and diastolic pressure must be proportionate to avoid retinal hemorrhages. Extremes of pulse pressure, high or low, favor hemorrhages or extravasations of plasma or serum.
4. Involutionary sclerosis is not usually associated with hypertension.
5. The maintenance of any toxin initiates or aggravates hypertension.
6. Essential hypertension usually eventuates into some form of nephritis, with a secondary heart condition.
7. Basically essential hypertension is a toxicity of some nature and a disturbance in the functional relationship of the vasomotor system (and vagotonic) and sympathetic system.
8. Spasm of the tunica muscularis in hypertension is common and accounts for some of the hemorrhages.
9. Retinal, cerebral and renal arteries are end vessels and constitute a peripheral heart.
10. Arterial retinal pulsation is never a normal state, but always indicates an organic valvular heart lesion or increased intraocular tension. Pulsation of retinal veins on the disc is not pathologic, but distal venous pulsation is pathologic.
11. Normal physiologic activities such as pregnancy and menopause as a rule do not produce permanent hypertension or vascular changes; but functional disturbances are not uncommon, and are not permanent.
12. A persistent high pulse pressure is conducive for sclerotic vessel changes.
13. A persistent low systolic and diastolic pressure favors retinal hemorrhages—even in the absence of atheroma or sclerosis.
14. Peripheral retinal hemorrhages in so-called physiologic senile albuminuria and diabetes depend on local sclerosis, and are not such a danger; and, in such cases, the hypertension is rather a negligible factor.
15. The presence or absence of hypertension or the extreme variations in blood pressure modifies the prognosis of nephritis and diabetes.
16. Essential (idiopathic?) hyperpiesis selects the ages between thirty-five and forty-five.
17. Pathologic hypertension selects victims between forty-five and sixty plus.
18. Any circulating systemic toxin influences blood pressure; and, if persistent, causes permanent hypertension and vessel sclerosis.
19. Arteriosclerosis is really an angiosclerosis.
20. Peripheral retinal hemorrhages are absorbed and recur frequently, cause no pain and relatively little visual disturbance, as compared with the central venous thrombosis and embolism of the central artery.
21. Retinal hemorrhaghes as such are principally venous and not arterial.
22. Retinal vessel embolism is usually associated with cardiac valve disease.
23. Central vein thrombosis (retinal) occurs oftener in nephritis than in diabetes.
24. Intraocular embolism is rare and thrombosis is common.
25. All hemorrhagic states of the retina in diabetes are usually preceded by more or less edema of the retina.
26. All hemorrhagic states of the retina in nephritis are usually not preceded by an edema of the retina.
27. Senile nephritis and diabetes are often associated.
28. Arterial sclerosis and atheroma are not synonymous, but can be associated or even develop simultaneously.
29. Atheroma per se is not prone to cause hypertension.

30. Retinal thrombosis or embolism primarily does not cause choked disc.
31. Peripheral retinal hemorrhages and choked disc or optic neuritis in patients about thirty, with evidence of albuminuria, are suspicious of an intracranial lesion. In such cases the intraocular vascular hypertension is often present, and systemic hypertension is absent.
32. Arterio-vascular changes, disturbances and hemorrhages in the retina are more often dependent upon general systemic cardio-vascular lesions than on pure intraocular lesions.
33. Intraocular blood pressure and hypertension are not related, and have very little in common.
34. Local vessel wall degeneration is the main cause of retinal hemorrhages. Atheroma of the vessel must be marked and the perivascularis membrane more or less sclerotic, as it acts as a supporting wall. When hemorrhages do take place, then the same are usually small and linear in character, as then the blood is in the perivascular channel. This holds true for the smaller and not the larger caliber vessel.
35. Increase of arterial tension increases liability to rupture, and is perhaps the principal cause.
36. Atheroma is more frequent in essential hypertension than in ordinary sclerosis.
37. It is seldom a tear in the artery or vein which causes the hemorrhage, but it is rather a diapedesis of cells and a transudation of the serum and blood plasma.
38. Hemorrhages usually arise from veins and not arteries. In thrombosis or embolism of the large vessels, rupture of wall may take place.
39. A sudden drop in blood pressure in these hypertensive cases is conducive for hemorrhages into the vitreous, especially in the presence of glaucoma.
40. The retinal hemorrhages may all be absorbed or some may remain, either leaving their marks as atrophic areas or patches of colloid areas.
41. Unless the main branches or disc vessels are implicated, very little if any visual disturbance ensues.
42. Cicatrization of the arterial walls causes a narrowing of the caliber and eventually a mere white line—so-called endarteritis obliterans.
43. Spastic contraction of the muscularis media is not uncommon in cases of hypertension—either ocular or general—and does give rise to hemorrhages.
44. Sclerosis of the vessels is frequently a hyaline degeneration.
45. Chronic inflammation of the intima of the vessels causes hyperplasia of the interstitial connective tissue and thickening of adventitia leads to sclerosis—the vessel is more homogeneous and uniformly more refracting. (Leber.)
46. Arterial retinal pulsation is due to the loss of the elasticity of the vascular system and there is a rise in the pulse wave in systole and carried to the retinal vessels as in aortic regurgitation.
47. As the artery compresses the vein, it causes so-called banking, and may even indent the retina or seemingly protrude into the vitreous.
48. Arteries usually are more rigid than veins, because of difference in anatomical structure.
49. Veins are often pushed aside or become tortuous when parallel to artery; because of the vessel wall sclerosis, their length is shortened.
50. The veins are often flattened and appear band or ribbon-like.
51. Ampulliform dilatation of the vein is usually on the distal side of the compression.
52. Sclerosis of the perivascular channel of the arterioles causes the centripetal deflection of the vein. It occurs when the vein crosses the artery or vice versa, or runs parallel to artery.
53. The greater the arteriosclerosis and sclerosis of the perivascularis, the greater the venous compression. All these changes are permanent, no matter what is the underlying cardiovascular renal lesion.
54. Retinal vessel aneurysm is very uncommon.
55. Fusiform and sacculated aneurysms do now and then occur, especially when the vessels cross one another or are intimately side by side. It is the nutritional disturbances in the vessel walls or the friction between them caused by the arterial pulsation which causes an erosion at the site of the contact and thus causing a fusion of the vessels. At times, however, there are congenital aneurysms, but these are exceptionally rare manifestations. Aneurysms seldom occur in the hemorrhagic cases.
56. Any of these ancurysms, either of the larger or smaller vessels, seldom if ever rupture.
57. The white lines on vessels are always present in nephritis, diabetes, hypertension and sclerosis, and are best seen with the red free light. These lines can be classified as follows:
    (a) Physiologic—when confined to the large vessels on the disc.
    (b) Moderate sclerosis—when white lines appear at the vessel crossings. The artery then does not lie directly on the vein, but appears elevated because of the sclerosis or thickening of the perivascularis.
    (c) Pathologic when rather widespread on the retinal vessels.
    (d) And when the large vessels are involved in large share of their course, it denotes an extreme pathology.
58. The degree of ampullæ form dilatation of the distal part of the vein depends on the extent to which it is compressed by the crossing artery and the degree of their sclerosis.
59. The perivascularis is reinforced at the crossings —becomes visible with the increasing arteriosclerosis. This is so-called perivasculitis, and seldom appears in atheroma.
60. Arteriosclerosis does exist without vascular hypertension. Hypertension, however, always produces arteriosclerosis.
61. The vessels on disc and in retina run in the channels of the perivascularis, which channel is quite pronounced for the large vessels, and diminishes in visibility along the capillaries and arterioles.
62. The disc is often rather extensively covered by a transparent mesodermic membrane—epipapillaris membrane—frequently mistaken for a pathologic condition.
63. Vessels on disc are under pressure in the sagittal and horizontal diameter, and is greater than in the retina.
64. Sclerosis causes loss of vessel transparency in more or less intermittent areas, and causes them to become copper colored. Perivascularis sclerosis appears as accentuated white lines at vessel crossings and accompanies the vessel walls for a greater or less distance from the crossings.
65. Sclerosis has a predilection for retinal and cerebral as well as for the kidney vessels.
66. Translucency of the retinal vessels is normal in the young and disappears with age.
67. Any prolonged toxic condition affecting the myocardium will also cause loss of retinal vessel transparency. Sclerosis will also cause this loss.
68. Hypertension:
    (a) Sclerosis without increased blood pressure is the so-called physiologic or involutionary sclerosis.
    (b) Hypertension will produce vessel sclerosis.

(c) Essential hyperpiesis has a predilection for the retinal vessels in causing loss of transparency and their color changes from rosy red to copper.

69. Involutionary arteriosclerosis—so-called atheroma—does not attack retinal or cerebral vessels very early, if at all—and then only in the advanced stages.
70. Hyperpiesis will alter the vessels early and permanently—both retinal and cerebral.

REFERENCES

1. Huber, Otto: Zur Genese der Retinitis Albuminurica. Klin. Monstabl. f. Augenhk., 88:507.
2. Guillermin M. et C. Chams: Les Variations de la Tension Arterielle Retinienne dans des Interventions Endonasales. Rev. d'Otol., 9:1-12, 1931.
3. Espildora, Luque, C.: Der Arterielle Ueberdruck im Kopfe. Rev. Med. Chil., 59:365-375 (Spanish).
4. Worms, G., and Chams, G.: Pression Arterielle Retinienne de type anormal au cours d'un syndrome l'hypertension intra cranienne d'origine tumorale. Bull. Soc. Ophth., Paris, 44:249-253, 1931.
5. Brana, Janas, and Schiff, Gyorgy: Augenhintergrundbeobachtungen bei arterio-sclerotischen Kranken mit Klagen über Kopfschmerz und Schwindel. Orv. Hetil, 1:416-417, 1931.
6. Friedenwald, Harry: Pathological changes in the retinal blood vessels, in arterio-sclerosis and hypertension. (Doyne Lecture). Trans. Oph. Soc. U. King., 50:452-531, 1930.
7. Gualdi, Vincenzo: Le Emorragie Retiniche da ipertensione essenziale. XXII, Cong. De le'Assoc. Oftal. Rome, 1930. (Abst. Zentbl. f. Gesamt. Ophthal., 26:635.)
8. Heider: Hochdruck und Augenhintergrund. Klin. Monstabl. Augenheilk., Vol. 87.
9. Guist, Gustav: Arterielle Hypertonie und Auge. Zeitschr. f. Augenheilk., 73:232, 243 and 290, 1931. Abst. Brit. Jour. Ophthal., 16:232.
10. Bailliart: The eyes in hyperietics. (L'Oeil des Hypertendus) Bull. de la Soc. Belge d'Ophthal., Vol. III, 1931. Abstract Brit. J. Ophthal., 16:372. Abstract Zentbl. f. d. gesamt. Ophthal., 26:464.
11. Magitot: Tonoscopy. Arch. Ophthal., 6:852-869.
12. Troncoso, Manuel Uribe: The valuation of the blood pressure in the retinal vessels and its clinical importance. Amer. J. Ophthal., 15:561.
13. Bailliart: La Circulation Retinienne a l'etat normal et pathologique, 1923 (Brochure).
14. de Raadt, O. L.: Die Pathogenese der Retinitis Albuminurica. Graefe Arch. f. Ophthal., 128:673.
15. Schieck: Handb. der Spec. Pathologischen Anatomie u. Histologie des Auges.

ACUTE CRANIAL AND INTRA-CRANIAL INJURIES*

H. K. SHAWAN, M.D.
Professor of Surgery, Detroit College of Medicine and Surgery
DETROIT, MICHIGAN

During the period between 1925 and 1929, inclusive, there were 2,529 patients who were admitted to the Detroit Receiving Hospital with severe injuries to the cranium or its contents, or both. Of these, 441 were not x-rayed. In the non-rayed group, 374 were altogether too ill to stand the technical manipulations for x-rays. The remaining sixty-seven were in good condition and were either released or transferred to other institutions shortly after admission. In the entire group there were 2,071 cases with fracture by ray or by inspection.

It may be seen that over 500 cases with acute cranial or intracranial injuries entered the hospital annually. On going over the admission records, it was noted that during December, January, February and March, there were fewer admissions than during the summer and fall months. The age distribution was interesting (Chart I). The majority belonged in the age group between twenty and fifty. The incidence was lower between ten and twenty, whereas in the age group before ten the number was definitely higher than in the second decade. This may be explained on the basis that between ten and twenty boys and girls are more careful than the more helpless group in the first decade and the more reckless group after twenty. The great majority sustained injuries in automobile accidents. This is important in that the same accident may cause injuries elsewhere in the body. With direct blows on the head the possibility of coexistent injuries in other parts of the body is not as great as in cases with indirect violence.

The x-ray findings and fractures diagnosed by inspection were instructive. The fractures in this series have been grouped according to the position in the anterior third, middle third and posterior thirds of the skull. The anterior third includes the vault to the fronto-parietal junctions and the anterior fossa. The middle third extends from the fronto-parietal junction to the occipito-parietal including the middle fossa. The posterior third includes the posterior fossa and the vault extending to the occipito-parietal junction. It is true that a certain number had fractures in more

*Read before the Upper Peninsula Medical Society at the Annual Meeting, Sault Ste. Marie, Michigan, August 11, 1932.

than one of these areas but in the great majority the fractures could be classified according to this method thus simplifying the general grasp of the problem.

An analysis of the position of the fracture in 2,071 cases is interesting. In 45.5 per cent the fracture was found in the middle third of the skull. The anterior third included 27.8 per cent of the cases with 125 sinus fractures and 138 depressions. The base involvement in the anterior third was 18.1 per cent. Depressions occurred in the anterior third more frequently than in the middle third. The frontal sinus fractures[1] have been classified as to incidence of brain injury, distribution, depressions, extension of sinus fracture into base or vertex, operations and results (Table I). There was only one case of meningitis in 125 sinus fractures, which speaks well for conservative treatment in these cases.

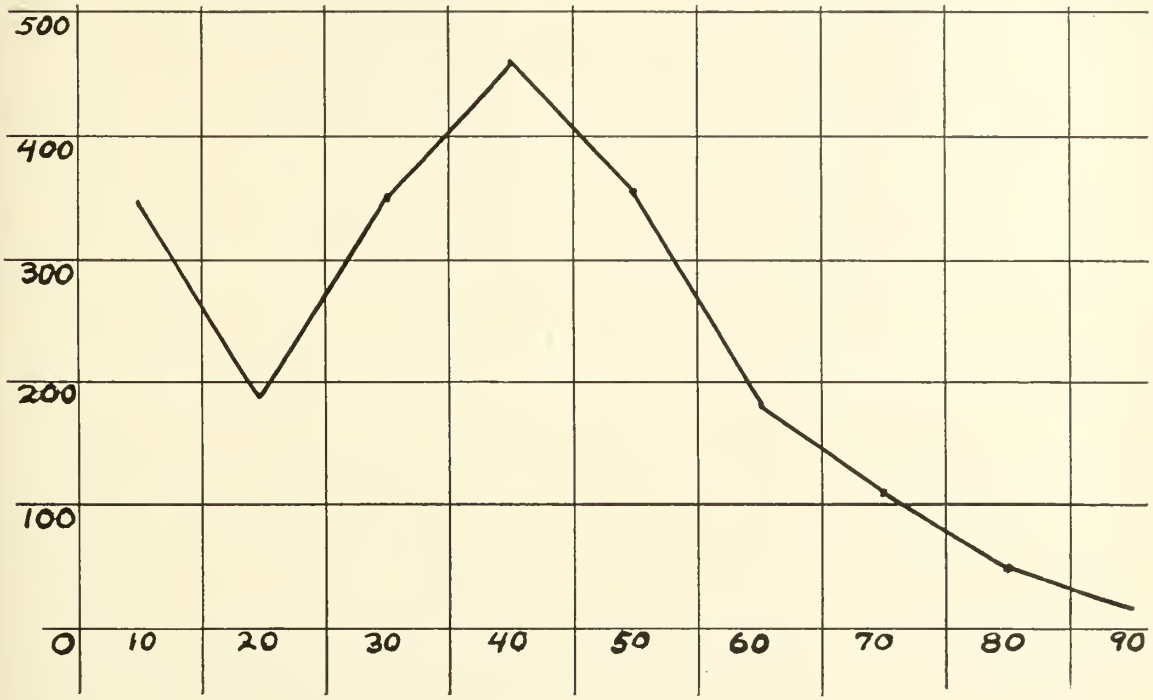


Chart I. The age distribution during four of the five years covered in this report. Note the lowered incidence of fractured skulls in the age group between 10 and 20.

TABLE I. ANALYSIS OF 125 CASES OF FRONTAL SINUS FRACTURE

Discharge from nose	
None	71
Epistaxis	52
Cerebrospinal rhinorrhea	2
Brain injuries	
None	19
Slight	50
Definite	51
Severe	5
Distribution of fractures—125 cases	
Right	58
Left	49
Bilateral	18
Compound	3
Depressed fractures—31 cases	
Right	13
Left	8
Bilateral	10
Extension of Sinus Fracture	
Into vertex	105
Into base	38
Outer wall of sinus only	11
Operations—3 cases	
Recovered	3
Died	0
Results	
Recovered	116
Died—9 cases	
Meningitis	1
Other causes	8

In 26.5 per cent the position of the fracture was in the posterior third of the skull. Here depressions were very infrequent and apparently serious from the standpoint of prognosis. In this particular series the mortality with posterior third depressions was around 47 per cent. Fractures extending into the base of the posterior third of the skull may be grouped according to position into two main classes. First, those which extend into the foramen magnum

(Table II), and, second, those which involve the base lateral to the foramen and therefore may pass through the jugular opening and on toward the petrous portion of the temporal bone. From a prognostic standpoint, our studies reveal that fractures involving the more central portions of the foramen are more favorable because of infrequent manifestations of associated brain damage. This is probably due to the fact that with a fracture in this situation, the force behind the blow is dispersed by the elasticity of the tissues and therefore kept where the blow was given, whereas with a more lateral fracture there is a tendency to transmission of the force to the general cavity of the cranium with consequent associated contra coup damage to its contents. This is notoriously true in fracture of the posterior third of the skull.

TABLE II. ANALYSIS OF 106 CASES OF OCCIPITAL FRACTURE EXTENDING INTO FORAMEN MAGNUM

Etiology		Brain injury	
Auto	66	None	38
Street car	5	Slight	35
Blow	10	Definite	25
Fall	16	Serious	8
Undetermined	9	Bleeding ears	
Age Distribution		Right	12
Under 10	48	Left	4
10-20	15	Both	4
20-30	10	No leakage	86
30-40	11	Results	
40-50	12	Died	8
50-60	3	Recovered	98
60-70	4		
70-80	3		

Bleeding from various body orifices is a serious complication in head injuries. Of these, the most important are bleeding or cerebro-spinal fluid discharge from the ears and nose. The latter is particularly important because it may signify fracture in the base of the anterior third of the skull, and in this series meningitis has occurred more frequently in cases of anterior third fractures than any other group. In such cases, a communication being established between the paranasal sinuses and the cranial cavity, infection may easily enter the latter. Bleeding from the ear is a serious manifestation. The 476 cases in this series (Table III) have been classified as to site, complications, x-ray findings and mortality. In cases with unilateral bleeding, the mortality has been around 37.5 per cent. Bilateral discharge is serious as evidenced by approximately 68

TABLE III. ANALYSIS OF 476 CASES OF BLEEDING FROM THE EAR

Right ear—173 cases. Mortality 37.1 per cent	
Recovered—110 cases	
Bleeding	110
Cerebrospinal leakage	0
Died—63 cases	
Bleeding	62
Cerebrospinal leakage	1
Left ear—205 cases. Mortality 38.5 per cent	
Recovered—127 cases	
Bleeding	123
Cerebrospinal leakage	4
Died—78 cases	
Bleeding	76
Cerebrospinal leakage	2
Bilateral bleeding—98 cases. Mortality 67.3 per cent	
Recovered—32 cases	
Bleeding	30
Cerebrospinal leakage	2
Died—66 cases	
Bleeding	64
Cerebrospinal leakage	2
Complications	
Meningitis—4 cases	
Recovered	0
Died	4
Otitis media—9 cases	
Recovered	8
Died	1
Mastoiditis—3 cases	
Recovered	2
Died	1
X-ray findings	
Unilateral bleeding	
Examined—282 cases	
Positive	265
Negative	17
Not examined—97 cases	
Bilateral bleeding	
Examined—49 cases	
Positive	48
Negative	1
Not examined—48 cases	

per cent mortality. Meningitis occurred in four cases with fatal termination in all. Mastoiditis occurred in three cases with one death due to associated meningitis. Otitis media was recorded in nine cases.[2] Such a low incidence of infective change with bleeding from the ears speaks highly of the type of treatment these patients received. If the bleeding has stopped, the ear is left alone. If there is still some discharge, the ear canal may be cleansed carefully, followed by the application of some antiseptic solution and a loose mastoid dressing. The canal is never irrigated, nor is it packed tightly. In the great majority of cases, such treatment is sufficient. As long as the patient has no complaints referable to the ears and so long as there are no unexplainable clinical findings, the ears are left alone. The less done in the form of examinations and the like, the better for the patient.

Vomiting is frequent in cases of head in-

jury. Particularly is this true in children and untreated adults. Incontinence of urine and feces is seen frquently within the first forty-eight hours. At times it can be attributed to shock, and then again it may be the result of serious brain damage with its consequent depressing effects on the entire body.

Pulse, respirations and blood pressure determinations may be of help in some cases. However, it is important to have frequent determinations in order to evaluate properly changes that may occur. On the whole, changes in temperature, pulse, respirations and blood pressure as in ideal cases of increased intra-cranial pressure occur infrequently in head injuries. An increase in or a distinct abnormality of the respiratory rate is probably a more sensitive sign of brain pressure than are the other items in this group. Particularly, blood pressures have been found of little value as to state of intra-cranial tension. One type of blood pressure finding is of serious prognostic significance, namely where the diastolic pressure is wanting and the systolic pressure is the pulse pressure. Such determinations in the adult have been unfavorable in every case. Likewise increasing and high temperatures point in every case toward a fatal result.

The neurological findings in cases of brain injury constitute a chapter in themselves. From a practical standpoint it is important that all these cases have a competent neurological examination. In a certain number, definite findings are on hand which may necessitate special treatment. Alterations in the state of consciousness are frequently seen and are most important in determining immediate treatment. However, a fracture of the skull does not always signify brain injury. About 20 per cent of the cases in this series with fracture gave no history of unconsciousness, and recovered with no untoward neurological findings.

Convulsions, paralyses and abnormal reflexes, constituting focal symptoms, should be watched for. Convulsions were seen in about 5.5 per cent of the cases. These were grouped in three classes: first, those with localized twitching of muscle groups (Jacksonian Epilepsy); second, those with generalized epileptiform convulsions; and, third, those whose attacks simulate decerebrate rigidity. From a diagnostic standpoint, Jacksonian attacks are important, for usually they signify a lesion of the brain supplying the part of the body where the attack occurs. Consequently, it may be necessary to intervene operatively if other corroborative findings are on hand. However, it may be emphasized that just Jacksonian spells with no other findings to justify operation may disappear entirely within twelve to twenty-four hours with nothing more than conservative treatment. In a number of such spells simple lumbar drainage gave excellent results.

Among the cranial nerves, the most frequently involved in cases of head injury is the seventh nerve. In a recent series 11 per cent with bleeding from the ear had associated facial paralysis. In the majority there is appreciable recovery within a month. In a few, it may persist for years. In one case which has been followed up for 3 years there are still evidences of returning tonicity and nerve supply to the facial musculature. It is apparent, therefore, that some of these cases may continue recovering for years. Blindness following head injury was seen in four cases. Ophthalmological examination showed no lesion of the nerve head and no evidence of hemorrhage into the vitreous and no injury to the retina. Cases of this type are a puzzle as to causation of blindness. It is possible for a fracture to involve the optic foramen and thus press against the optic nerve. It must be emphasized, however, that such a depression could not be severe enough to cause an occlusion of the ophthalmic artery for in the acute case the fundus examination is absolutely negative. Another possibility is hemorrhage into the sheath of the optic nerve with consequent pressure against the same. A third possibility may be a sudden impact against the nerve, without necessarily a fracture in the region of the optic foramen. Extra-ocular paralyses do occur in association with head injuries.

Of particular interest are cases with third nerve palsy. They have been present in five out of seven cases of middle meningeal hemorrhage. The explanation as given is with a clot originating from the vicinity of the foramen spinosum there is a dissection of the dura off the base of the middle third of the skull, until the contents of the superior orbital fissure and the cavernous sinus are compressed. With pressure in this region there is a more frequent involvement of the third nerve because of its central position, whereas the sixth nerve, which is protected by the reflected edge of the dura, and the

fourth nerve, which is in close proximity to the bone, usually escape damage. A middle meningeal clot enlarging further dissects the dura off the concavity of the skull with consequent pressure against the brain so that in such cases it is not uncommon to see a third nerve paralysis with contralateral paralysis of the body simulating Weber's syndrome. Weber's syndrome[3] was described for lesions in the brain stem, but in cases of middle meningeal hemorrhage the same picture may present itself with a lesion in the middle third of the skull and in no way associated with any change in the brain stem. This is important certainly from the standpoint of treatment.

Recent work at the Receiving Hospital by members of the staff has brought out that certain hitherto unexplained and undiagnosable lacerations of the cortex may be diagnosed if certain findings are kept in mind. I am referring to lacerations of the inferior aspect of the frontal convolutions so commonly seen in cases with fracture of the posterior third of the skull.[4] In the LeCount and Apfelbach[5] series of post-mortem cases with contra coup, lacerations were present in 78 per cent of the cases with fracture in the posterior third of the skull. The diagnosis of such lacerations depends upon the presence of irritative manifestations involving the face and possibly also the upper limb in the presence of a posterior third fracture.

In a certain number of cases, catatonic states have been noted and at present such states have been considered, to a certain extent at least, indicative of a lesion in the left fronto-parietal cortex, for most of these cases have associated aphasia.[6]

An understanding of the treatment in cases of head injury should always imply the proper understanding of the underlying pathology. Such a tabulation is of help and is therefore given at this time.

I. Fracture of the skull, simple
II. Fracture of the skull, simple depressed
III. Fracture of the skull, compound
IV. Intracranial hemorrhage
  A. Extradural, due to rupture of the meningeal vessels, sinuses and diploë.
  B. Intradural, due to pial tears, bruises or laceration of nervous tissue.
    (1) Subarachnoid
      a. Generalized
      b. Localized
    (2) Intraparenchymatous
      a. Petechial
      b. Massive
V. Bruising or laceration of nervous tissue, with or without fracture of the skull.
VI. Increased intracranial pressure
  A. Caused by any of the above
  B. With no demonstrable brain pathology
VII. Complications
  A. Meningitis
  B. Meningo-encephalitis
  C. Brain abscess
  D. Pneumocephalus

It may be seen from the above tabulation that there are a certain number of conditions which are ineffectively treated by present day medicine. It is reasonable to operate on cases of extradural hemorrhage, depressed fracture with signs and compound fracture. On the other hand, the reason for sub-temporal decompression in cases of subarachnoid hemorrhage without signs is not well understood. Through a small opening in the temporal fossa, a very small amount of blood may be removed, but in the majority of cases with generalized subarachnoid hemorrhage, the collection of blood covers the entire one or both hemispheres. If the operation is performed for purposes of relieving pressure, it may be justifiable, but if it is used to decrease post-traumatic results, it is of little benefit.

The total mortality for this series of proven cranial and intra-cranial injuries from any and all causes was 27 per cent. Of these, 55 per cent expired within twenty-four hours and 71 per cent died within forty-eight hours after being injured. In cases of head injury, it should always be kept in mind that many receive not only blows on the head but often injuries elsewhere in the body. In a recent series of 138 deaths, twenty could be attributed to lesions in other parts of the body. Some had associated fracture dislocations of the spine with transverse myelitis. Others had associated chest injuries. In four cases, there was rupture of intra-abdominal organs. Particularly at the onset, it is difficult to diagnose intra-abdominal injuries, as the usual tense abdomen may be wanting.

The management of skull injuries and intra-cranial damage is a serious problem and will undoubtedly increase in importance for years to come. In the consideration of various special complications, we have already designated the necessary treatment instituted. On the whole, the treatment of skull fracture with brain injury after elimination of shock is conservative. In a recently carefully checked additional series of over 700 cases, 58 per cent were confined to bed with the head of the bed elevated and ice bags

applied to the head. Symptomatic relief was also administered. In another 35 per cent, it was necessary to resort to dehydration therapy and spinal punctures. In 7 per cent of the cases, operations were performed. On the whole, conservatism is proper, but conservatism constantly alert for complications requiring surgical intervention is imperative.

Much has been said about the value of spinal puncture in cases of head injury. In some clinics these are performed routinely on all cases. The argument is presented that removal of blood from the subarachnoid space minimizes the undesirable post-traumatic sequelæ in such cases. Of course, it is accepted by everyone that this procedure does actually lower intracranial pressure and as such it is very valuable in the acute case. However, the presence of blood in the spinal fluid may denote one of several pathological changes, in many of which the removal of blood from this space as such would not materially alter conditions. Further, the fractional method of drainage of spinal fluid is of little value when the bleeding is caused by lacerations of the brain tissue or when clotting has occurred. What spinal drainage can take care of is blood in suspension. In a very few where the diagnosis is obscure, it may be performed. In general, punctures are not performed until eight to twelve hours after admission, for during this period the patients are in shock. Any such procedure to decrease intracranial pressure may cause fresh bleeding. Our service has seen three deaths following soon after lumbar puncture although one may not be sure of the puncture as the causative factor. Lumbar punctures are of great help in acute post-traumatic headaches, in unconsciousness and drowsiness which lasts over twelve hours. It has been used with success in some cases with Jacksonian epilepsy, aphasia, focal motor manifestations, etc. Nevertheless we do not feel that lumbar punctures are indicated routinely in every case.

The medical treatment of increased intracranial pressure is sufficiently settled. In the so-called edema of the brain, characterized by a long-drawn-out post-traumatic period of incomplete consciousness, operative treatment along the lines of decompression have seemed of little assistance. Rather should dehydration solutions be employed. Of the various substances used, we prefer 50 per cent glucose in 100 c.c. doses intravenously every 8 hours. It is not only a dehydrating but it also is a nutritive agent. Hypertonic glucose solutions administered by rectum have proven to be less accurate. In connection with dehydration, it is important to be sure that the patient receives sufficient fluid for metabolism. We give at least 900 to 1,000 c.c. of fluids daily and if the patient is unconscious it may be necessary to administer it rectally, or better still by hypodermoclysis.

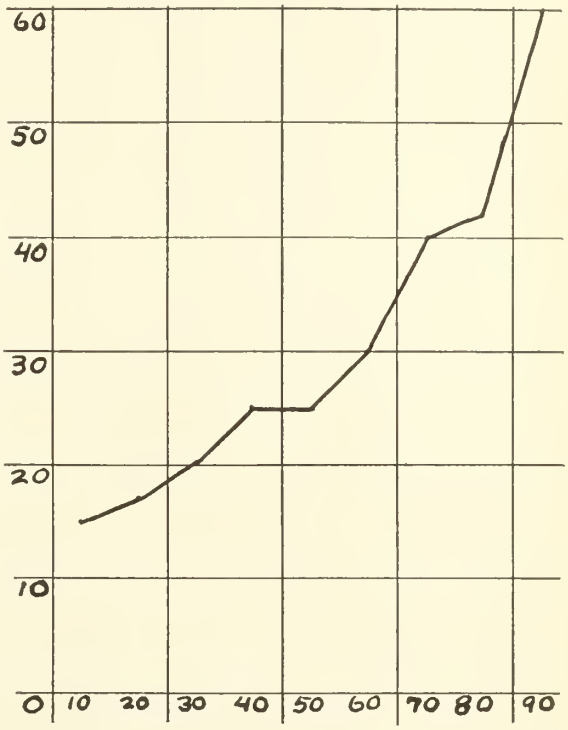


Chart II. Mortality percentage in relation to age distribution. Ninety per cent of individuals suffering fractured skull at the age of sixty expired.

The operative treatment in case of head injury is standardized at the present time. Every one will agree that compound fractures should be repaired as soon as the patient's condition permits. Cases of middle meningeal hemorrhage should be operated on, as well as depressed fracture with signs. Cases of subdural hemorrhage with progressive signs are also considered fit for operative approach. Very few are operated upon for mere increased intracranial pressure. For methodical purposes we will discuss these various operative topics.

Compound fracture: Frequently compound fracture of the skull should and can be taken care of early. However, it is im-

portant to allow the patient to recover sufficiently from shock before any operative intervention is attempted. In one case we waited as long as 24 hours before debridement and the wound was closed tightly at the conclusion of the operation with no ill effect. Particularly when repairing bones in the frontal region is it important to save the appearance of the patient insofar as possible. In this region, if practicable, the entire area of depression may be removed as a whole and after adjustment all of the pieces may be replaced. Primary healing following this procedure usually occurs and an excellent cosmetic result is obtained.

Middle meningeal hemorrhage: After the diagnosis of epidural hemorrhage is arrived at, it is advisable to do one or two diagnostic trephine holes in order to insure that the conclusion is correct. This is followed by an osteoplastic flap and removal of the clot in its entirety. In some cases where there are too many lacerations and some infected, it may be better to perform the well-known subtemporal decompression. However, in a certain number of cases, this approach would not be sufficient for the proper evacuation of the epidural space.

Depressed fractures: Simple depressions with signs are fit for operative approach. Here again it is important to emphasize that the operation should not leave the patient with serious visible deformities which may become a psychic factor. Particularly in the frontal region the bloc elevation of the area of depression should be kept in mind. If the patient has no signs, it is left to his judgment as to whether or not the deformity is treated. Many of these cases have no untoward symptoms because of an area of depression somewhere in the skull. It seems that the experimental work of Naffziger and Glaser[7] in animals is worthy of serious consideration. They state that a depression which has not torn the dura is not causative in the production of post-traumatic sequelæ in the absence of initial brain damage at the time of the blow. Where pieces of bone actually pierce the dura, we feel we are justified in intervention. At any rate, a careful study of rays and clinical manifestations will allow one to arrive at a correct conclusion.

Subdural hemorrhage: In the presence of large collections of blood giving rise to focal manifestations, we feel justified in intervention. However, the results in these cases are far from satisfactory. The majority die in the hospital and the very few that survive are mentally unfit for long periods of time. The approach here is either a subtemporal decompression or a low flap.

Anesthesia: Particularly when working in the frontal region, block anesthesia should be used. The blocking of the supra-orbital and supratrochlear nerves on both sides with additional infiltration in front of the ear to block the auriculo-temporal will give a large insensitive area for operative work. Local infiltration should be used wherever possible except in cases where there is a surrounding area of infection. In cases of middle meningeal hemorrhage, we prefer a general anesthetic because it causes a sufficient amount of intra-cranial pressure increase to obliterate the epidural space left vacant following removal of the clot.

SUMMARY

1. During the five year period covered by this report, 2,529 patients with acute cranial or intracranial injuries were treated. Automobile injuries account for the great majority of the total. The total mortality from all causes was 27 per cent.

2. The treatment was mainly conservative. Intravenous glucose has steadily replaced other dehydrating solutions, spinal punctures and decompressions.

3. Operative treatment has been reserved for compound fracture, intra-cranial hemorrhage with signs, and some cases of depressed fracture.

BIBLIOGRAPHY

1. Gurdjian, E. S., and Shawan, H. K.: Management of skull fracture involving frontal sinus. Ann. Surg., 95:27, 1932.
2. Gurdjian, E. S.: Ear complications in acute craniocerebral injuries. Radiology, 18:74, 1932.
3. Gurdjian, E. S.: Alternating oculomotor paralysis in middle meningeal hemorrhage. Arch. Neur. and Psychiat., 28:26, 1932.
4. Gurdjian, E. S., and Schlafer, N. H.: The diagnosis of laceration of the orbital surface of the frontal lobes. Arch. Neur. and Psychiat., 26:583, 1931.
5. LeCount, E. R., and Apfelbach, C. W.: Pathologic anatomy of traumatic fractures of cranial bones. J. A. M. A., 74:501, 1920.
6. Gurdjian, E. S.: Catatonic motor phenomena in skull fracture with brain injury. J. Nerv. and Ment. Dis., 73:493, 1931.
7. Naffziger, H. C., and Glaser, M. A.: An experimental study of the effects of depressed fracture of the skull. Surg., Gynec. and Obst., 51:17, 1930.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H.
LANSING, MICHIGAN

PREVALENCE OF DISEASE

The prevalence of measles is rapidly on the increase in Detroit and vicinity. Last year, during the time the rest of the state was having the greatest number of reported cases on record, Detroit was experiencing a considerably lower prevalence. This year it is Detroit's turn and true to expectancy the number of cases reported from there is high. Elsewhere in the state the prevalence of measles is low, but that of German measles is unusually high.

Diphtheria continues its decline. The season about to close is far below any year on record. This should not be taken as an indication that diphtheria is about to become extinct. This is a cyclic disease, and based on past experience we may sooner or later expect a rebound and an increase in prevalence. Active immunization should keep this expected return down to a minimum and never again should there exist the wide prevalence or high fatality rate of a couple of decades ago.

Perhaps most remarkable in the behavior of communicable diseases at present is the almost complete absence of smallpox. During the first three months of 1933 only 13 cases were reported for the entire state and the diagnosis in a number of these was quite doubtful. We should not be fooled into thinking that the people of the state are well enough vaccinated to account entirely for this very striking reduction. The longer this low prevalence of smallpox continues, the more apathetic will the public become regarding vaccination. At least in this respect history repeats itself, and when conditions are right and virulent smallpox makes its appearance it will again take a heavy toll before sufficient people can be immunized to halt its progress.

C. D. B.

MEASLES VERSUS GERMAN MEASLES

Notice of changes in the regulations of the Michigan Department of Health pertaining to measles and German measles has recently been sent to all physicians and health officers.

These changes provide for greater leniency in respect to German measles. Contacts of this disease are not in any way restricted, placards on the house are not necessary, but cases are to be reported and excluded from school for one week from onset. Physicians who have not received notice of these changes in the regulations may secure a copy from either the local health officer or the Michigan Department of Health.

Local health departments have the right to make more stringent regulations if they so desire but the recent changes eliminate the necessity of much loss of school on the part of those exposed to the relatively quite unimportant disease, German measles. The greatest significance that may be attached to German measles is the frequency with which it is confused in diagnosis with scarlet fever and sometimes with measles.

NEW TUBERCULOSIS REGULATION

A new regulation designed to aid in the control of tuberculosis in schools was adopted at a meeting of the State Council of Health on March 8, 1933, in accordance with Act No. 314 of the P. A. of 1927. It reads as follows:

"No teacher employed in any school who is suffering or afflicted with an active tuberculosis shall be permitted to continue to teach, and no pupil in any school who is suffering or afflicted with the adult type of tuberculosis shall be permitted to continue in school, as long as the lesions remain active. The x-ray findings, interpreted by competent authority, shall be considered as conclusive evidence of the existence of active tuberculosis."

SUNDAY CALLS

Telegraph is more certain and satisfactory than telephone in reaching the Michigan Department of Health on Sunday. While workers are on duty in the laboratory during most of Saturday afternoon and Sunday, the capitol telephone exchange is closed and consequently long distance calls frequently fail to reach their destination. A telegram stands a much better change of securing results.

CHILD HYGIENE

Women's classes which are being held in Lenawee County by Dr. Edna Walck are having a record attendance, as 608 women last week attended classes in 14 centers organized for this purpose. Dr. Alexander is conducting a similar series in Macomb County with an attendance slightly under 400 each week.

Child care classes are being conducted in Berrien, Branch, Lapeer, Genesee, Clinton, Alger and Schoolcraft Counties.

A series of Women's classes has been started in Hillsdale County with Bertha Wellington, R.N., giving instruction in nutrition for prospective mothers and mothers of infants and young children. Dr. Edna Walck will follow Miss Wellington and complete the series.

A series of Women's classes to be conducted by Dr. Ida Alexander in Cass County beginning the latter part of April has been organized by Esther Nash, R.N. A series will be held in Manistee by Dr. Edna Walck.

Martha Giltner, R.N., prenatal nurse for the department, began a prenatal nursing program in Midland County on January 17, 1933, at the request of Dr. A. W. Newitt, County Health Officer. From that time to March 18, Miss Giltner has had under her supervision 127 prospective mothers. The two nurses connected with the County Health Unit are working with her on this program.

INCIDENCE OF RINGWORM OF FEET IN A UNIVERSITY GROUP

ROBERT L. GILMAN, Philadelphia, examined, during the spring of 1932, 500 consecutive men students taking the regular prescribed gymnasium course and 285 women students. In the two groups 60 per cent of the cases were positive among the men and 57 per cent among the women. The most constant symptom among these students was the occurrence of immoderate foot sweaitng, an increase of 50 per cent over the noninfected group. The management of ringworm of the toes has become unnecessarily involved and complicated. Consistently good results can be obtained by proper foot hygiene, that is, the frequent changing of shoes and socks, and the thorough drying of the toes after washing. Then the use of wet compresses or antiseptic soaks, followed by the use of ointments, either bland, stimulating or keratolytic, is in order. Finally, one has recourse to stronger lotions and powders in the chronic type of infection. For compresses or soaking foot baths in the acute stage, the author uses saturated solution of boric acid or Burow's solution, 1:16. For the subacute, and in some acute cases, potassium permanganate, 1:4,000, has no equal, followed in the acute cases by a 5 per cent ointment of ammoniated mercury applied in and around the toes after they have been thoroughly dried. In the chronic stage with either maceration or fissures, the alternate use of a strong stimulating tar and Whitfield's ointment is in order. An alcoholic solution of 4 per cent salicylic acid and 8 per cent of resorcinol applied to the toes or a foot powder used in the daytime, is helpful in those cases associated with excessive sweating.

MICHIGAN MEDICAL BULLETIN SURVEY*

County	Issue	Size	No. of pages	Pages of Ads	Pages of Read.	Copies sent	Issues per yr.	Adv. Rates 1 ½ ¼	Cost to print	Profit	Pay of Editor
Oakland 110	Mon.	6x9	8–16	3–4½	10	110/40	10	10. 5. 3	40.00	none	none
Jackson 76	Mon.	6x9	12–24	6–8	6–16	76/200	10	7. 4. 2	27.50	$200 per yr.	none
Kalamazoo 133	Mon.	6x9	4	0	4	133/105	10	0. 0. 0	13.50	none	none
Genesee 150	Bi-mon.	6x10	4	1	3	150/20	26	20.15.10 per 2 issues per mon.	.55	none	none
Ingham 100	Mon.	6x9	8–12	1–1½	7–10½	100/100	10	12. 6. 4	30.00	none	none
Calhoun 110	Mon.	6x9	12–16	6–8	6–10	110/75	10	6. 4. 2	26.50 37.50	$100 per yr.	Profit on ads
Wayne 2500	Week-ly	6x10	24	8–10	16–14	2500/200	52	22.14. 8	Printed by commercial concern on a profit share basis. No profit at present.		

Saginaw, Bay, Washtenaw and St. Clair County Medical Societies do not publish a bulletin.

*We are indebted to Dr. Harry B. Knapp for this survey of bulletins published by the various county medical societies mentioned.

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will he furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

MAY, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—*Francis Bacon*

EDITORIAL

AN OBSERVER AT LANSING

The Wayne County Medical Society has furnished an observer at Lansing during the present session. Being a member of the Wayne County Medical Society himself, the editor has hesitated to express himself on this feature of Society activities. However, so much commendation has come from members of the Michigan State Medical Society from outside Wayne County that we no longer veil our modesty. We employ the term *lobbyist* with certain reservations. It has been so customary for special interests to be represented in legislative halls, or corridors, both state and national that the term has come to smack of self interest with all that goes with it.

The so-called lobbyist, however, can render a very valuable service to the legislature if he be well informed and of the right kind. The only interest the medical profession has is that of public and personal health. In this case might be mentioned two important measures among others in which the medical profession is interested: one is House Bill 398 embodying necessary changes in the medical practice act to make it conform with present day requirements; the other is Senate Bill 106 providing for a board of professional examiners. The member of the house of representatives or the senator whose object is to serve his constituents to the best of his ability will seek all the information possible from those in a position to know the requirements. The observer or lobbyist representing the medical profession is in a position from long and intimate acquaintance with the legal aspects of medicine to offer valuable information on such subjects.

PHYSICIANS AS LEGISLATORS

The *Wayne County Medical Bulletin* advocates that more physicians permit their names to go on the ballot for election to civic and legislative bodies, such as council, board of education and state legislature. There are fewer physicians representing the city or municipalities than any other professional class. Lawyers are a long way in the lead. Nearly two-thirds of the presidents of the United States have been lawyers, while no physicians have held that office. Lawyers have predominated in state legislatures as among the professions. The reason for this is in part due to the fact that lawyers can delegate their work to other members of the firm where they are organized into groups, while medicine is such an individual matter that it demands the doctor's personal attention. However, the physician of the proper type would make a good representative. He is not likely to be led away by fads or by emotional appeal. He has been trained to think independently so that could he be prevailed upon to run for office the city or state as the case may be would benefit by his judgment.

LABORATORY SERVICE

The suggestion has been made that the city or other municipality provide laboratory facilities, both x-ray and clinical, where physicians may send patients of limited means to receive necessary roentgenological and clinical laboratory examinations free. Considering the financial condition of the great majority of people such a course would mean an extra burden on municipal hospitals inasmuch as some one must pay the bill if the patient does not. With depleted treasuries which prevail all over this state, the suggestion is particularly ill advised.

Such a course, it goes without saying, would be ruinous to the practice of those physicians who devote their entire time to roentgenology or clinical laboratory diagnosis, who, we believe, are willing to accommodate themselves to the demands of the situation and to reduce their charges to a minimum, even in some instances to the bare price of the materials used, and the municipal laboratory can do no more than this.

A TREE THAT SHOULD BE SPARED

The economic depression has led to a movement towards wholesale reduction in state expenditures. As a rule this attitude on the part of law making and law administrating bodies is commendable. Economy should be the order of the day, although, to use a homely expression, coming at this late time, it is like locking the stable after the horse has been stolen. A wise discrimination should be made in the matter of retrenchment. We have in mind our institutions of higher education. The grammar school is admitted to be a universal necessity, yet if education does not proceed farther than this, its value is not only limited but in some respects open to question.

It is to the high schools and to the state university we must look for leadership in science and law and medicine. The University and the Michigan State College belong to us and render the state service of untold value both directly and indirectly. The University of Michigan is not only nationally but internationally famous. In the process of pruning, great care should be exercised not to impair its usefulness. It is men, not buildings, that make institutions of higher learning great.

"NOTHING IN EXCESS"

The effects of the depression have been so far reaching that in some directions results have been actually beneficial. In England they have manifested themselves in pronounced sobriety, as almost any American visitor to England and the continent might testify. In Canada, even in spite of the repeal of prohibition, drinking appears much less than during the preprohibition period. Banquets were at one time synonymous with gormandizing. Today they are much simpler as well as more infrequent.

One hundred years ago Thackery expressed his reaction to the civic festivals of his time, "What can be the meaning of a ceremony so costly, so uncomfortable, so unsavory, so unwholesome?" He continues:

"It was, I say, like something out of a Gothic romance, or a grotesque fairy pantomime. Feudal barons must have dined so 500 years ago. . . . A stream of meats, a flare of candles, a rushing to and fro of waiters, a ceaseless clinking of glass and steel, a dizzy mist of gluttony, out of which I see my old friend of the turtle soup making terrific play among the peas, his knife darting down his throat.

"Who is to be called upon to pay two or three guineas for my dinner now, in this blessed year 1847? Are there no poor? Is there no reason? Is this monstrous belly-worship to exist for ever?"

The present generation in this country, as well as in England, cannot be charged with intemperance in eating and drinking as were our forebears of over a century ago. The past three years have witnessed even greater continence in eating and drinking, yet the health of the nation has not suffered. There is, however, a limit beyond which health may be adversely affected. The ancient Greeks had a proverb which made them a great people. It was, "nothing in excess," in other words *temperance.*

AN EXPLANATION

A letter was received from a physician who has been known to us for a number of years, whose ability and judgment we have always held in highest regard. The doctor protests against the publication of the comment in the March Number of this JOURNAL which appeared under the heading *Hospital*

Service. The objection appears to be to the inclusion of all hospitals among the alleged offending institutions. We admit that it is a dangerous thing to indict as a class any group or kind of institution for the transgressions of what may be only a few. And certainly in the article in question, those hospitals which have not essayed to enter the field of medical practice in competition with individual members of the medical profession are not included among those the writer had in mind.

While state medical journals are supposed to voice the views and to advance the interests of the medical profession, both general practitioners as well as members of the various medical and surgical specialties, they aim as a rule to exercise a spirit of impartiality and good will towards all ancillary institutions.

In order to obtain as far as possible a competent view of the subject of *Hospital Practice,* outside anything that may be held by this JOURNAL, the editor has asked Dr. J. A. MacMillan to comment on the subject in question. Dr. MacMillan is chairman of a committee that has just finished an investigation embodied in an exhaustive report auxiliary to the medical and social survey that has been under way for over a year under the auspices of the Michigan State Medical Society. While Dr. MacMillan's letter, which appears elsewhere, is not with the authority of the committee, it has been written by one who perhaps has given as much time and thoughtful study to this and other subjects pertaining to social and economic medicine as any other member of the Medical Society.

THE BANKING SITUATION

Perhaps the most momentous as well as distressing event in the experience of physicians during the past two months is the debacle that has befallen many banks in this state, particularly the two largest in Detroit. Inconvenience and loss are no name for it. Little has been written of any definite news value, though the banking situation has occupied the front pages of the newspapers longer than any other event of which we have any recollection. Extra after extra has poured from the presses with a ray of hope which was almost as quickly extinguished. Industry has been at a standstill. The ranks of unemployed have increased. Greater numbers have applied to the welfare, only to be met by a frozen exchequer. Not only have private hospitals been handicapped in their efforts to provide the necessary care for the sick, but municipal hospitals have threatened to close their doors. The members of the medical profession have nobly carried on, often unable to meet the expenses of their practice. Debts remain unpaid. In embarrassment the great majority of honest and self-respecting persons are compelled to offer the excuse that the banks have all their working funds, and some others perhaps may use the situation as a convenient alibi for postponing the fulfillment of obligations. The relation of creditor and debtor is such that no self-respecting person wishes to be debtor for any length of time, since such persons always strive for equilibrium of obligation. In olden times the debtor was the slave of the creditor, who could at will cast him into prison or press him into servitude; while modern civilization no longer permits such physical relations, there is still more or less opprobrium attached to the person who treats his obligations with levity, which makes us wish

> For a home on a quiet street
> A safe retreat from the d—— deadbeat.

As we view it, banking has suffered among other things from the absence of the *scientific method* which has produced every advance in the industrial world. We would hesitate to consider the average banker dishonest. He is as honest as the citizen in any other calling. Is there not a possibility that his methods are antiquated? We have been told that promotion among the ranks of bankers depends often more upon influence than upon superior knowledge and ability. The larger the banking institution, like the great business or other corporation, the less the individual counts, so that he becomes often no more than a technician or accountant. The scientifically trained mind has accomplished remarkable results in other fields of human endeavor. Why not the trained economist in banking?

SPECIALIST

It seems only a short time since what was considered the passing of the general practitioner was predicted and lamented. He has not passed out, however, but appears to possess a vitality that will enable him to wit-

ness the obsequies of his confrère, the specialist. During prosperous times specialism in medicine, as well as in everything else, flourishes. Patients select their own doctors for gastrointestinal complaints, or eye, ear, nose, and throat troubles without consulting the general practitioner. The period of the boom is past—perhaps never to return. The factors that tend to stabilize prizes and income at a much lower level than those which prevailed prior to 1929, are numerous; perhaps the tendency to the elimination of manpower from industry through invention, is the greatest factor. The result is the decentralization of population. Cities become smaller. The demand for real property becomes less. This means that the average income is curtailed until a new normal is reached. Specialization, owing to the limitation of the field, requires a higher fee commensurate with the service demanded. Not able to meet it, patients become fewer so that, as a result, the erstwhile specialist is compelled to step down and broaden his field. He is thus compelled to reënter general practice where he began his professional career. The general practitioner, on the other hand, enlarges his field and diagnoses and treats conditions that not long ago were by common consent the field of the specialist.

SPRING DAYS

Come, lovely flowers that bloom in May,
Come, bonnie birds that sing,
Oor robins an' oor daisies say
Come, guid glad days o' spring.
Oh! daisy days,
Ma hert it says
Ah luve your ways,
Oh daisy days.

Come, grass an' trees that green appear,
Come, breezes, blow an' sing
Glad tones of mirth an' joy an' cheer,
Come, guid glad days o' spring.
Oh! balmy days
An' ripply bays,
Ah luve your ways
Oh balmy days.

Come, clouds an' rain an' sunshine too,
Come, shrubs an' vines that cling
To fence an' oak, an' shine wi' dew,
Come, guid glad days o' spring.
Oh! sunny days
Wi' cloudy haze,
Ah luve your ways
Oh sunny days.

—Weelum

OH! OH! ENGLISH

"It is, nonetheless, a fact that in the educational scale, from the average man up to the university executive, there is a lack of comprehension of matters radiological, that ranges from discouraging public misconception, through pitiful medical misinterpretation, on to unjust administrative decisions, along with dangerous legislative enactment, all ascribable to inefficient pedagogic superficiality."—From a scientific paper which appeared in an eastern medical journal.

PHYSICIANS CHARITABLY MINDED

(Detroit Free Press)

There is no reason to doubt the accuracy of the report by the American Medical Association that over 200,000 of the more than million hospital beds in the country are now unoccupied. But the subsequent conclusion that the United States has become "vastly over-hospitalized" is a statement that lends itself to scrutiny.

How many of these 200,000 beds are unoccupied today because there really is not need for them, and how many are vacant because people who are ill and ought to have hospital care haven't any money and are obliged to get along with whatever attention they can secure in their homes and from charitably minded physicians? And happily most physicians are charitably minded.

People of small means in fragile or ill health are not those who are suffering least from a situation which is keeping between 10,000,000 and 12,000,000 people in forced idleness.

CRISIS AND BRAIN POWER

(Manchester Guardian)

It seems a curiously cold form of comfort which has just been administered by Sir Henry Gray, a well-known surgeon who has been addressing the Montreal branch of the Royal Empire Society. He seems to think that the existing financial troubles of the world are as nothing to the mental disorder which may yet overtake us. He hesitated, he said, "to suggest a possibility of a widespread mental crash" to match the various financial ones that are now in progress, but he immediately went on to announce that "the innate capacity of the modern brain is even more out of control at present than are the immense forces let loose by its want of foresight." There are few people whose blood will be chilled by tales of that sort. Thanks to the Providence which supplied it, or assisted at its age-old development, the innate capacity of the human brain remains remarkably little affected by its owner's social mistakes; an instrument which could survive experiences like the Black Death and the Thirty Years' War is not going to be collectively terrified into one large lunatic asylum because it has been discovered that half the gold in the world cannot ensure that American banks can meet their creditors. If man's social and financial arrangements functioned with a quarter of the instinctive equanimity that has been shown at all periods of history by the mental make-up which deals with each day's difficulties as they arrive, what a much more smoothly administered place the world would be. Certainly it is man's brain which has made man's financial troubles, but there is another and deeper aspect of that useful instrument which keeps him going, troubles or no. It is like that classical instance of the French peasant still ploughing on the outskirts of the battle; it still lives and works from day to day, even though theories to which it once trusted lie in ruins. In the mass the mind of man is a dependable instrument in spite of its mistakes. And if it got us into our present mess it is equally certain that it will have to get us out.

MEDICAL ECONOMICS

THE NEW DEAL IN MEDICINE

J. C. S. BATTLEY, M.D.
PORT HURON, MICHIGAN

I.

Looking backward one may follow the history of medicine from the dawn of the Minoan and Babylonian cultures, into the clear day of Greece, through the long night of the Dark Ages, through the breaking light of the Renaissance, into the clear brilliance of our own day. Medicine has been inseparable from man's long upward struggle from the dark. There have been times when, under persecution, it has gone into eclipse. But when it seemed weakest it was gathering greater strength. Its progress is exemplified in the lines of Bryant,

> Truth crushed to earth shall rise again,
> Th' eternal years of God are hers.

It is from an historical viewpoint that we must look at the problems of the profession of medicine as they present themselves to us in these changing days. It may be truthfully said that crises are recurrent in the affairs of great institutions. They must be always on guard lest the forces of reaction pull them down. A depression of unusual severity has brought forward questions which are requiring us to examine and to defend our position, for there are those who, knowing little of the inner light derived from a union of science and art by which we live, would seek to alter our course.

Although we are now passing through a period of great strain to our economic and social structure, such times have been unknown before. Economic and social adjustments follow in the wake of great wars. It is well known that England did not fully recover from the Napoleonic Wars until 1840. Mr. Esmé Wingfield-Stratford in his book "Those Earnest Victorians" says:

> The year after Waterloo was one of unprecedented misery. Industry was no longer doped by the demand for munitions, the labour market was flooded, and England's customers abroad were either too much impoverished to pay for her goods, or were beginning to use the new machinery on their own account, and protect their home markets against British competition. To crown all this, the harvest was one of the worst ever known. Unemployment, distress, discomfort, were everywhere rife. The fruits of victory had no sooner been grasped than they turned to ashes.

In George Eliot's novel "Middlemarch" we have a description of medical life in those times. The picture of Tertius Lydgate bears the semblance of reality for it is known that the author modeled her doctor after her then young friend, the late Sir Clifford Allbutt. The experiences of Lydgate read strangely like those of a present day physician. It would help young doctors over more than one stile if "Middlemarch" were a required reading before graduation. They would realize that their problems are in many ways the same as those that their predecessors of many years ago had to confront and to surmount. Yet the profession of medicine lived through those times to see better ones.

II.

In times of stress it is easy to lose sight of the essence of matters and to substitute for it irrelevant and unrelated factors. The basic idea at the root of all great institutions can usually be expressed in a few words. In medicine it is simply to help the sick. A part of the Hippocratic Oath is, "Into whatever houses I enter, I will go into them for the benefit of the sick." Any consideration of medicine that is not based on this premise must fall short of a complete understanding of the problem. Since the advent of big business many laymen and some physicians have come to think of medicine as a business. A business is organized essentially for the making of profits. Medicine is organized to help the sick and therefore falls into a different category. Methods for making medicine more efficient have been devised and all sorts of commercial practices have been applied to it. These, though helpful in some ways, have failed, as might be expected, in their main application for the reason that medicine, not being a business, is not amenable to business methods. In truth, much of the difficulty that doctors are now experiencing is the result of attempts to impose business practices on medicine. Finally has come the majority report of the Committee on the Costs of Medical Care which advocates the socializing of medicine and the establishment of a type of practice that would be nothing less than a medical bureaucracy that could not help but have unfortunate political implications.

Medicine is standing at one of the many crossroads of its history. Shall it become socialized or shall it retain its traditional character of independent individual practice? That some change is due is apparent because the help that it is the province of medicine to extend to the sick is not being equitably distributed. The successful application of new ideas to medicine must always satisfy two requirements: first, the free choice of physician, and, second, the maintenance of close personal relation and confidence between patient and physician. These requirements cannot be divorced from the principle of helping the sick. They constitute the keystone of the medical arch and any scheme that does not take them fully into account is doomed to ultimate failure whether or not it is the acme of modern efficiency.

From the very fact that human beings are not responsive to passage along an assembly line, it follows that the practice of medicine must be to some extent loose jointed and flexible. The profession is attached by nature as well as by tradition to the theory of individual initiative and liberty. This is deep rooted in its character as two thousand years of experience show. Indeed, it must be so if we are to carry out the idea of helping the sick, for not infrequently little science is required to help a sick man. Rather an abundance of sympathy, assurance, and tact is needed, the application of which is an art. "Wherever there is a heart and an intellect," said Hawthorne, "the diseases of the physical frame are tinged with the peculiarities of these." It must be emphasized that there is a difference between curing and helping the sick.

Sir William Osler said in "Æquinimitas," ". . . by the historical method alone can many problems in medicine be appreciated." The brilliant achievements of the Greek intellect lay dormant through the Dark Ages submerged beneath a mass of soothsaying and astrology. Before medicine rose from the night of medievalism to its present position it was on the level of a trade. Its characteristics were quackery and fetishism and its main object that of making money. It was not until the sixteenth century that the spirit of inquiry which characterized the Greek epoch began once more to show itself. For three more centuries the doctrines of church and state hampered its progress and only within the last hundred years have we been able to shake off the shackles of dogma and authority. We still suffer from our medieval inheritance for superstition in the practice of medicine is not unknown as any practitioner can testify.

In scientific achievement we have attained an excellence which even the heyday of Greece cannot match. In the practical application of medicine, however, we lag years behind actual knowledge. Paracelsus, who lived in the first half of the sixteenth century, once said, "It is erroneous to speak of fever as if it were a disease. The name fever refers to the heat of the disease and the heat is merely a symptom. It is neither the cause nor the substance of the disease." As to the pertinency of this assertion Paracelsus might be living today. Few people aside from the especially informed look upon fever as other than a disease. If we treat the fever they are satisfied. A man may know all about the internal troubles of his automobile but next to nothing about the possibilities of trouble in his own body. He may know the kind of gasoline and oil on which his car runs best but nothing of the principles of correct diet. From this undesirable state we are rapidly emerging owing to the wide spread of modern education in general and of medical information in particular. It would seem dubious wisdom to adopt a system which would again impose the restrictions of authority upon the free practice of medicine.

III.

The discrepancy between the extent of our knowledge and the extent of its application is a noteworthy fact in the present medical situation. Our medical schools are devoted to the training of students in scientific medicine and research. After spending his undergraduate years and perhaps some post-graduate years in their environment, the young doctor experiences a rude shock on being thrown into the cold water of outside practice. He finds that medical knowledge is only part of the armamentarium that he requires. The other requirements are what for some time he may think of as secondary and in which his university courses gave him no preparation, namely, patience, sympathy, tact, and an infinite capacity for dealing with small things. For awhile, it may seem to him that the fish are not worthy of his rod. From continually seeing a certain interesting disease on the hospital wards he is lucky if he sees one case in five years. In the hospital he gave orders, nurses carried them out, and results followed. In practice patients do not always carry out orders, nor do they always take advice and results are not always forthcoming.

The doctor finds that the practice of medicine is much like the croquet game in Alice in Wonderland, for when he is about to hit the ball the hoops move or the mallet flies out of his hand. Again he finds that he is working in a competitive environment which is not always pleasant. In short he comes to learn that a physician earns his living by the sweat of his brow as everyone else does, that there are no great financial rewards, and that the medical life finally resolves itself into an adventure for bringing help and comfort to suffering fellow creatures. It is this last that counts. For a few short years we stand at the zenith of our scientific opportunity and then a multitude of uncontrollable factors, ill health, family considerations and other fateful circumstances sweep us beyond it. But helpfulness we can always retain and in the end it is the main guy rope of life for the physician.

The recent death of a beloved uncle in my own family enabled me to realize this as I seldom have before. For a time I was not a doctor but a member of a family that stood bravely by awaiting with a smile the dreaded summoner. Each day the doctor came bringing some little message of comfort to patient and family. Between the patient and his physician there came about a tacit understanding and an acceptance of the inevitable. One day my uncle said in a tone of perfect assurance and resignation, "How long does the doctor say it will be now before the end comes?" Can words describe the comfort and strengthening aid that a physician can bring to a dying man? Surely the real firing line of medicine is not in the laboratories and wards of hospitals but in the towns, villages, and hamlets scattered all over the country.

IV.

Speaking on the subject of the role of the private practitioner in preventive medicine, Sir George Newman, in the 1926 Annual Oration of the Hunterian Society, said:

> At no period in English medicine has there been such a bold and significant attack upon epidemic diseases by the medical practitioner as that which characterizes the eighteenth century. From 1720 onward we have an astounding record of the pioneering efforts of practitioners to study and understand and grapple with these diseases.

And again:

> It was part of the imagination and adventure of the critical, rationalistic, and inventive spirit, yes, and of the larger sympathy of man with man which in all departments of human endeavour made the eighteenth century, "the great heroic age of England."

It is not without significance that since the Great War the outstanding scientific achievements in medicine, the isolation of thyroxin, the discovery of insulin, the development of the liver extract treatment for pernicious anemia, have been made on the North American continent. Yet the heroic age of medicine in America will not consist of fresh conquests in the laboratory and in the wards of hospitals. It will be the age that will bring the achievements of scientific medicine to every door and finally kill the dragons that continue to prey upon us, for dragons confront us today even as they did the heroes of old. One of them is the inertia which prevents the wiping out of smallpox, a disease for which we have a means of absolute prevention. Another is the indifference which allows the ravages of diphtheria, the chief cause of death in children under fifteen years of age, when they might be completely eliminated. Still another is the anomaly of an age in which with an actual excess of physicians thousands are starving for adequate medical care.

The next hundred years will see as never before the development of medicine as an art. It is only with such a development that the full impact of scientific knowledge can be passed on to the common people. The twentieth century in America has so far seen a renaissance of beauty. Everywhere beauty is making itself manifest. Architecture is crystallizing into noble buildings. Art galleries are bringing to us the beauties of old and new civilizations. The music of great symphony orchestras is being flung through the air until the night fairly drips with melody. Religion is emphasizing the beauty of the spiritual adventure. A similar development may be expected in medicine. The greatest service in the medical life is not covered by the word scientific. The helpfulness which is the real mission of the physician depends as much on the beauties of personal relationship and spiritual uplift. He must be an actor and an artist as well as a physician. Stimulating as this prospect is we must ask ourselves with dread how it can come about with the free initiative required by any artistic venture stifled by socialized medicine.

V.

Nineteenth century medicine must undergo many changes if it is to survive in this strange new cen-

tury. Our policy regarding the practical application of medical knowledge has been largely to sit beneath our own vine and fig tree, none making us afraid, and wait for the world to come to us. The doctor has always been a gentleman and there has always been a certain reticence to gentlemen. Some things are just not done and pushing one's self unduly to the front is one of them. But we must now prepare to push ourselves to the front before others take the leadership from us. Schemes of medical practice conceived by lay minds unmindful and unheedful of the necessities of good medical practice are springing up everywhere. These are represented as being superior to the usual methods. The public is getting a distorted notion of what good medicine consists. If the potentialities of medical science are to be translated into successful application it is the practitioners in town, village, and country who must militantly carry the banner forward.

Any appraisal of our present condition must be made against the background of the industrial revolution which has enveloped us. Smoking mills and huddled cities have taken the place of a diffuse country life. Our daily existence has been moulded by commercial influence and medicine has not escaped it. It is difficult, in the modern industrial world with its periods of unemployment and dislocations of life arising from the rapid adoption of mechanical devices, to distribute medical care freely and equally to all classes of the population. Some plan of sickness insurance may become necessary to bear the burden of medical care. Whatever form it takes it must leave the patient free in the choice of his doctor and must in no way hamper the personal relation between them. In sound insurance the cost is borne by the insured. So it must be in medical insurance. Paternalistic schemes of paying for medical care by taxation can have no place in sound sickness insurance.

This view is supported by the British experience with unemployment insurance. Evidence taken by the Royal Commission on Unemployment Insurance was generally to the effect that the British scheme of unemployment insurance, which is supported largely by taxation, was never actuarily sound at any time. The testimony of Mrs. Sidney Webb maintained that, "the intervention of a third party—that is to say, the Government, free to change, at its will, the rates of contribution and benefits, and even the eligibility to benefit—takes the matter at once outside the category of an insurance policy as the term has hitherto been understood." One suspects that the same situation would arise in a government administration of sickness insurance. In the development of plans for sickness insurance those who are most concerned, physicians themselves, should take a leading part. Leadership must not be left to lay organizations who are primarily interested in profits and often in the exploitation of the medical profession, nor to governmental groups whose activities will result in bureaucratic control.

Civilization is drifting like a battered and rudderless ship in the night. The dark hours are passing and the pale dawn of the new century begins to fret the clouds of doubt and despair. Into a world distraught, medicine can bring a message of comfort and hope. When we were children we always felt better when the doctor came and the doctor to-day can take a leading part in the rehabilitation of society. We must carry on with the determination which Columbus showed when he set out to find a new route to the Indies, braving the terrors of a voyage during which even hope seemed gone, and which is so inspiringly set forth on the Columbus Monument in Washington, D. C.—To the memory of Christofer Columbus whose high faith and indomitable courage gave to mankind a new world.

CORRESPONDENCE

THE PRACTICE OF MEDICINE BY HOSPITALS

(To the Editor of the Journal of the Michigan State Medical Society)

In the March issue of this journal there is an article on Hospital Practice, a subject which at the present time is attracting much attention from the public as well as from the medical profession. During the past three years it has become painfully apparent that unwarranted expenditures of capital have been made in the industries, institutions and among the people generally. It is not surprising, therefore, to find that hospital construction and enterprise should have reached limits which now must be considered extravagant. When we look backward on the period of frenzied spending, we must admit that during that time the hospitals of this country have reached a high standard of perfection which has contributed much to safe surgery, accurate diagnosis, and improved facilities for other forms of medical practice. I think it may be stated that the hospitals in our age have made immense contributions to the progress of medicine and surgery; however, while admitting all this, the pertinent question has been raised in many quarters and in the above mentioned article, "Have hospitals the right to practice medicine, and if so, to what extent?" An answer to this question would involve a very wide discussion of such questions as indigency, contagious diseases, public health, industrial surgery, and Army and Marine hospitals.

I believe it is the consensus of opinion that certain patients suffering from contagious diseases should be hospitalized and the patients cared for by the staff of the hospital. There is some difference of opinion in regard to the necessity for special closed hospitals for tubercular patients, crippled children and the insane. The word "closed" is used here to mean limited to the staff of doctors employed in the institutions. In a general way, to answer the question of the right of a hospital to practice medicine or surgery hospitals may be divided into three classes:

1. The tax supported hospitals.
2. The hospital founded on charitable donations.
3. The independent investment hospitals.

It is, I believe, an injustice to the medical profession for a tax supported hospital or tax exempt hospital, which is virtually the same, to practice medicine or surgery on pay patients. Such hospitals are in direct competition with the private practitioner, who is taxed to support his competitor. It is obvious that a hospital having been founded upon, and being supported by, charitable donations, should not enter the business of competitive medical practice. This is a vicious perversion of the tacit or expressed intention of the original founders and those to whom the donations were intrusted. It is most unfair to those in control of such hospitals to use the means given for charity to enter the competitive field of medical practice.

Now, it seems to me, that the status of a hospital that represents the investment from private means of an individual or group, is quite different. Such a hospital is not tax supported, nor has it been established by solicitations of charity. Many of those independent investment hospitals in this country are engaged in the practice of medicine and surgery and the services they render to their patients are of

a high order. It would seem to be conceded by the public and the medical profession that a hospital that is not supported by taxes, nor by charitable donations, has a right to practice medicine and surgery.

Regarding this question from another point of view, it may be stated I believe that tax-exempt hospitals should not engage in medical practice. In recent years there is a great relative increase in the number of patients receiving medical care in clinical groups, hospitals and other institutions, and a corresponding reduction in the practice of private physicians. This is probably the outstanding phenomenon that marks the trend of present day medicine. A clinical group with a responsible chief in control and with certain other features of this new deal is commendable; however, insofar as a hospital encroaches upon individualistic competitive practice or renounces the physician's personal responsibility for the outcome of his service or eliminates the direct interest of the physician on his patient, medical practice by a hospital must be regarded as directly pernicious to the medical profession and ultimately to the public.

J. A. McMILLAN.

Detroit, April 1st

SOCIETY ACTIVITY

OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association:

The eighty-fourth annual session of the American Medical Association will be held in Milwaukee, Wisconsin, from Monday, June the twelfth, to Friday, June the sixteenth, nineteen hundred and thirty-three.

The House of Delegates will convene on Monday, June the twelfth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, June the thirteenth, at 8:30 P. M.

The various sections of the Scientific Assembly will meet Wednesday, June the fourteenth, at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

EDWARD H. CAREY, *President.*
FREDERICK S. WARNSHUIS,
Speaker, House of Delegates.

Attest:
OLIN WEST, *Secretary*
Chicago, Illinois, March the twenty-fifth.

POST GRADUATE CONFERENCE

Port Huron—Harrington Hotel
Thursday, May 4, 1933
Auspices of Michigan State Medical Society
and
Department of Graduate Medicine—University of Michigan
T. F. Heavenrich, M.D., Councilor, presiding

4:30 P. M. Pelvic Inflammatory Diseases
Norman F. Miller, M.D., Professor Gynecology and Obstetrics, Ann Arbor
5:30 P. M. The Anemias
A. C. Curtis, M.D., Department of Medicine, Ann Arbor
6:30 P. M. Dinner
7:15 P. M. Problems in Medical Practice
J. D. Bruce, M.D., Vice President of the University; Director, Dept. of Graduate Medicine, Ann Arbor
7:45 P. M. Acute Suppurations of Nose, Throat and Neck
A. C. Furstenburg, M.D., Professor Otology-Laryngology, Ann Arbor

Doctor: This is your special invitation to be present. Bring a friend. You will profit handsomely. A cordial welcome awaits.

T. F. HEAVENRICH, M.D.,
Councilor.

POST GRADUATE CONFERENCE

Bay City—Wenonah Hotel
Wednesday, May 3, 1933
Auspices of Michigan State Medical Society
and
Department Post Graduate Medicine—University of Michigan
Paul R. Urmston, M.D., Councilor, presiding

10:00 A. M. Care of the Heart in Middle Age
Robert Novy, M.D., Detroit
11:00 A. M. Circulatory Problems in Relation to Obstetrics and Surgery
E. D. Spalding, M.D., Detroit
12:00 Noon Luncheon
1:00 P. M. Cardiac Arrythmias and Heart Failure Management
Frank N. Wilson, M.D., Ann Arbor
2:30 P. M. Diets in Cardiac Disease
Mrs. Dorothy S. Waller, Ann Arbor

LICENSING LAWS

During the latter part of March there were introduced in the Legislature three bills pertaining to the licensing of physicians and surgeons and chiropractors.

The first bill known as Senate Bill No. 106, File 116, was introduced by Senator Upjohn on March 27. The title of the bill is as follows:

"To prescribe the educational qualifications of applicants for license to practice the healing art, as defined herein; to create a board of professional examiners and to define the powers and duties thereof; to prescribe penalties for violations of the provisions of this act; and to repeal all acts and parts of acts inconsistent with the provisions of this act."

The bill provides for a board of seven members who shall be chosen from teachers of professional rank at any university or college in this state authorized by law to confer the bachelor of science, bachelor of arts, master of science or master of arts degrees.

Section 3 of the bill defines healing art to mean "to examine into the fact, condition or cause of human health or disease, or to treat, operate or advise for the same, or to undertake, offer, advertise, announce or hold out in any manner to do any of said acts, for compensation, direct or indirect, or in the expectation of compensation." The bill exempts dentists, optometrists, chiropractors, nurses and those who treat by means of pray.

Section 4 of the bill makes it mandatory that all those who intend to practice the healing art shall, before applying to any Board of Registration having the power to issue licenses to practice the healing art, secure a certificate from the board of professional examiners. To obtain this certificate the applicant must present credits of at least thirty semester hours of college work or to have passed an examination before the board. If he takes the board's examination he must present a total of fifteen High School credits and take an examination in English Language, Biology, Chemistry and Physics.

If this bill is passed it will become mandatory for

every person who desires to practice the healing art to first obtain a certificate of pre-medical education as outlined in the proposed law.

On March 28, Representative Rulison introduced House Bill No. 398, File No. 404. This bill makes certain amendments to the present law governing the practice of medicine and surgery.

The first amendment provides for a board of ten resident electors who shall be legally registered physicians and have been in practice for at least six years. This amendment does away with the old section that designates that the board members should be from four different schools of medicine. The second amendment authorizes the board to waive examination of graduates of accredited medical colleges. The third amendment clarifies the powers of the board in regard to the revocation or suspension of a license. The next amendment classifies the violation of the law as a felony and provides for a fine of $1,000, or imprisonment not to exceed three years.

The next provision is that a physician must file a copy of his license with the County Clerk in each County where he practices.

The salary of the Secretary shall be fixed by the Legislature but provision is made that he may receive additional sums for extra or special services in carrying out the provisions of this act as they may be voted to him by the board. The members of the board are to receive only their actual travel and hotel expenses when attending meetings of the board.

The next important change is a section that authorizes the Attorney General, Prosecuting Attorney, a member of the board or any citizen to maintain a suit against violators of the law. By reason of changing the violation from a misdemeanor to felony it is now possible to insure a court injunction against violators. This provision makes it possible for the Attorney General to proceed in a case, especially in counties where the Prosecutor is reluctant to issue a warrant.

This bill also includes an amendment which authorizes the board, in fact it makes it mandatory, for the board to suspend the license of any person who does not maintain a legal residence in this state. This latter provision will do much to aid the Doctors who are permanently located in what are known as the resort regions of the state and whose practices are encroached upon during the resort season by doctors who spend one or two months of the year at these resorts during their vacation periods and then return to their own state for the resumption of their legal practice.

On March 27, Representative Hatch introduced House Bill No. 389, File No. 395. This is a bill to create a separate board of chiropractic examiners. The board is to be composed of three chiropractors and all those who desire to practice chiropractics must have 2,750 class hours of instruction and pass an examination in the following subjects: anatomy, physiology, histology, chemistry, pathology, bacteriology, diagnosis, hygiene and public health and the theory and practice of chiropractics. The bill defines the practice of chiropractics to be "the science of locating and removing any interference with the transmission of nerve energy without the use of drugs or surgery."

SURVEY REPORT

At a meeting of the Committee on Survey of State Medical and Health Agencies, held in Ann Arbor on March 22, 1933, the Committee accorded detailed attention to a critical survey and analysis of the factual data in its possession, determined the length of time required for tabulation, appraisal, editing and publication, and for the formulating of the Committee's conclusions and recommendations and reached the following conclusions:

1. That it will require six weeks to tabulate, edit and print the factual data in the Committee's hands.
2. The Committee will require four weeks to review all these data and to formulate its final conclusions and recommendations.
3. It will require at least one week to print the completed report and accomplish its distribution to Delegates, Officers and County Societies. The Committee purposes to make every effort to complete its work by June 10, 1933.
4. The report will contain some 100,000 words. The Committee is of the opinion and recommends to the Council that arrangements be made for regional groups to meet and study the report before its presentation to the House of Delegates.
5. The Committee expresses as its opinion that at the present time none of its findings indicate the need of special legislative action. Where the solution of problems do indicate the need for legislation such legislation will be related solely to County and City governing bodies and not to the State Legislature.

W. H. Marshal, *Chairman.*

COUNTY SOCIETIES

GRAND TRAVERSE-LEELANAU COUNTY

The regular monthly meeting of the Grand Traverse-Leelanau County Medical Society was held March 7, 1933, at the J. D. Munson Hospital, Traverse City.

Dr. B. B. Bushong of Kalkaska was admitted to membership.

The secretary gave a report on the Secretaries Conference just held at Grand Rapids.

Dr. James Maxwell of the University Hospital, Ann Arbor, gave a thoroughly scientific talk on "Complications of Middle Ear Infections."

Dr. R. M. Nesbitt, also of the University Hospital, gave a talk on "Prostatic Disease" covering in considerable detail the history and development of the cautery punch operation for hypertrophied prostate.

Following a 6:30 steak dinner at the Park Place Hotel, a social evening was held in regular Traverse City style.

E. F. Sladek, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The March meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, March 23, 1933.

Dinner was served to fifteen members and one visitor; three members came in after dinner.

Minutes of the February meeting were read and approved. Communications were read from the State Secretary and from Councilor Powers. In answer to the latter, the following motion was made and carried: "That the Gratiot-Isabella-Clare County Medical Society feels it would not be wise to call a special meeting of the House of Delegates until we have had opportunity to study the report of

the committee on survey of medical and health agencies, and instruct our delegate."

Motion was also made and carried "that we have a regular meeting in April in addition to the special meeting with the Board of Supervisors."

President Carney then took up the program, in which the following members gave short papers:

Dr. P. R. Johnson—"Scarlet Fever."

Dr. K. P. Wolfe—"Diphtheria."

Dr. B. J. Graham—"Poliomyelitis."

Dr. A. L. Aldrich—"Chicken-pox and Small-pox."

Dr. R. H. Strange—"Sequelæ of the Acute Infectious Diseases of the Eye, Ear, Nose and Throat."

Dr. A. D. Hobbs—"Mumps."

Each of these papers was discussed by some of the members, the consensus of opinion was that this was a very profitable meeting; so much so, that a motion was made, and carried, that we ask the younger members to contribute to the future programs.

E. M. Highfield, M.D., *Secretary.*

INGHAM COUNTY

CLINIC

Thursday, April 20, 1933

2:00 P. M. Abdominal Surgery
Presentation of Cases
Dr. Frederick A. Coller, Professor of Surgery, University of Michigan

3:00 P. M. Arthritis
Presentation of Cases
Dr. Joseph L. Miller, Professor of Medicine, University of Chicago

6:00 P. M. Dinner

7:00 P. M. Signs of Progress
Dr. Frederick C. Warnshuis

7:30 P. M. Present Concepts of Arthritis
Dr. Joseph L. Miller

LAPEER COUNTY

The regular meeting of the Lapeer County Medical Society was held at Dryden, Mich., April 13, 1933, Dr. I. E. Parker of that village acting as host.

After a delightful dinner served at the Red Fox Inn, the meeting was called to order. The following officers were elected for the year: H. M. Best, Lapeer, president; D. J. O'Brien, Lapeer, vice-president; J. R. McBride, North Branch, secretary; delegates to the state convention, H. M. Best and J. Spencer, both of Lapeer.

Dr. F. E. Reeder, Flint, served as guest speaker of the evening and gave a very interesting discussion on "Fractures of the Pelvis," demonstrating with slides.

Out of county guests were Dr. Randall, Flint; Drs. Heavenrich and Kallory, Port Huron, and Dr. Lett, Rochester.

The society will not hold a regular meeting in May, but, instead will attend the Post Graduate conference being held in Port Huron, May 2, 1933.

J. R. McBride, *Secretary.*

MUSKEGON COUNTY

The Muskegon County Medical Society has achieved three special accomplishments during the past year, stamping 1932 as one of the organization's most successful.

Outstanding among the three is the termination of a successful first year of caring for county indigents in local hospitals at a saving of several thousand dollars to the county and a distinct benefit to the hospitals. It is believed by the society that there is no other welfare agency which has been able to lessen instead of increase the burden to the taxpayers during the past year.

Muskegon and the local society were jointly honored in the election of Dr. George L. LeFevre, a leader in the work of the Michigan State Medical Society for many years, as president for 1933. The third achievement was the endorsement of a successful candidate for county coroner.

The plan of local care for indigent sick was devised here in 1931 and approved exactly a year ago, or on December 31, 1931, when the board of supervisors signed an agreement with Hackley and Mercy hospital officials.

Prior to the adoption of the new plan, more than 200 persons were being sent annually to Ann Arbor, a distance of 200 miles, while local hospitals were more than half empty.

Under the Medical society plan, the hospitals agreed to accept the county patients at approximately cost. Members of the society agreed to care for the patients at a nominal fee.

During the past year about twenty persons were sent to Ann Arbor, while 200 were cared for at Hackley or Mercy hospital at a saving of several thousand dollars to the county.

Last year 234 persons were sent to hospitals at the expense of the county. More than 500 persons applied for free hospitalization during the past twelve months but less than half have merited hospital care. All have been properly cared for, many by individual physicians who have donated their services in cases where county care was not quite justified in the opinion of the medical director.

Success of the plan was indicated when the board of supervisors at the October, 1932, session unanimously voted to continue the service.

Membership of the society remained constant during 1932, two members being lost by death and two being added as newcomers. Dr. Lucy N. Eames died early in the year. Dr. Jacob Cramer died several months later. Dr. DeVere Boyd and Dr. Leland Holly are the new members.

Ten monthly dinner meetings have been held with an average attendance of twenty-three. The society boasts sixty-three members, all of whom also are members of the Michigan State Medical Society, an enviable record among county societies of the state.

The February meeting of the Muskegon County Medical Society was held Friday, February 24, 1933, at the Century Club. Twenty-seven members were present. After the business meeting Dr. Fred Cole of Detroit presented an illustrated lecture on "The Modern Trend of Prostatic Surgery." This paper was considered one of the best presented before the society for some time.

The March meeting was to be held Friday, March 31, but was postponed due to the death of Dr. A. A. Smith. Dr. Smith was seventy years old and had practiced in Muskegon since 1891. He was born April 27, 1862, near Chatham, Ont. He was educated in Canadian schools and was a graduate in medicine from Toronto University.

The April meeting of the society was held Thursday evening, April 13, 1933, in the Community Room of the Hackley Union Bank Building, Dr. E. N. D'Alcorn in charge.

M. E. Stone, *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of the Society was held Tuesday, March 21, 1933, at Edgewater Inn, Port Huron, Michigan. Supper was served to twelve at 6:30 p. m. Meeting called to order by President McColl at 7:50 p. m. Eighteen members and two guests were present.

The secretary read the minutes of the two preceding meetings in outline in order to save time. Doctor MacKenzie reported upon the application of Doctor Johnson of Capac to become a member of the society, and upon motion of Doctor Heavenrich sup-

ported by Doctor Thomas the matter was laid on the table until the next meeting. The secretary read the monthly letter from the state secretary and Doctor Heavenrich followed to amplify and explain the substance thereof in greater detail. Doctor McColl, president, then instructed the secretary to submit to the chairman of the Membership Committee the names of all unpaid members in order that his committee could take steps to encourage the payment thereof.

Dr. J. H. Andries of Detroit addressed the society upon the subject, "Clinical Significance of Peritoneal Adhesions." The speaker took up the subject covering the known etiology, symptomatology and treatment thereof, as well as the explanation of the origin of the pain which he said actually originated in the subperitoneal tissues underneath the parietal peritoneum and in most cases was due, he thought, to a pulling upon the parietal peritoneum by the intraperitoneal adhesion. Doctor Andries stated that the extent of pain was in inverse proportion to the extent of the adhesion, that is, small thread-like adhesive bands as a rule gave more pain than large broad areas of adhesions. Doctor Andries demonstrated about fifty lantern slides taken from x-ray pictures of the abdomen after the peritoneal cavity had been filled with oxygen gas. These slides were explained by the speaker and the various bands of adhesions demonstrated.

The discussion was opened by Doctor Thomas, who was followed by Doctors Sites, Windham, Smith, MacKenzie, Heavenrich, Bowden and Battley. Doctor Andries then closed his subject.

The meeting adjourned at 9:45 p. m. after the president had expressed the appreciation of the society to our guest for his splendid talk.

A regular meeting of the Saint Clair Society was held Tuesday, April 18, 1933, at Edgewater Inn, Port Huron, Michigan.

Supper was served to eleven members and two guests at 6:30 p. m. Before the meeting was called to order sixteen members were present. President McColl called the meeting to order at seven forty-five p. m. The minutes of the last regular meeting were read and corrected, then approved. Three communications were read. Upon motion duly supported the Society endorsed Senate Bill No. 106 and House Bill No. 398, the two acts prepared by the Healing Arts Commission to govern medical practice in Michigan, and instructed the Secretary to write letters to both State Representatives from Saint Clair County requesting their support for these bills unamended. Doctor McColl announced the coming Post-Graduate Conference to be held at the Hotel Harrington, Port Huron, Michigan, Tuesday, May 2, 1933, the program to begin at four p. m. Doctor Armsbury of Marine City moved that the Society hold its annual social meeting on June 6 at Edgewater Inn and suggested that the various speakers before the Society during the past few months be invited to attend as guests of the Society. Supported and carried. The president then spoke of the number of unpaid members of the Society for the current year and called upon the secretary, who stated he would be glad to talk with any of the unpaid members and make any necessary arrangements with regard to acceptance of part payment or note to cover the same in order to keep the members in good standing in the State Society. Doctor William S. Summers of Detroit addressed the Society on "Recent Advances in Ophthalmology as an Aid to the General Practitioner." The address was splendid and enjoyed by all present. Adjourned at 9:45 p. m.

GEORGE M. KESL, *Secretary-Treasurer.*

NORTHERN MICHIGAN

The regular monthly meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, April 13, 1933. There was an attendance of thirty members and six guests.

The meeting began at 4:00 p. m. with a clinic conducted by Dr. Udo Wile, Professor of Diseases of the Skin, University of Michigan, Ann Arbor. Many cases covering a very wide field were presented and were very much enjoyed by all present. The demonstrations lasted two hours and an informal discussion was held after each case.

The clinic was followed by a dinner, after which remarks were heard from various guests and Dr. Wile gave a short talk on his feeling toward the general practitioner.

Motion was made that the committee on by-laws and constitution report at the May meeting. Motion carried.

Dr. Harrington was appointed to the Program Committee. The program for May will be a post-graduate conference put on by the State Society. Exact details are being worked out and all members will be notified as to the program at a later date.

ERVIN J. BRENNER, *Secretary.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

WOMAN'S AUXILIARY to the AMERICAN MEDICAL ASSOCIATION*

Eleventh Annual Meeting
Milwaukee
June 12-16, 1933

HEADQUARTERS: Hotel Pfister, Milwaukee, Wisconsin

PRELIMINARY PROGRAM

MONDAY, June 12, 1933. 12:30 P. M. Luncheon at College Woman's Club in Honor of Past Presidents, followed by National Board Meeting and visit to American Medical Association Exhibits at Auditorium. Tickets $1.00. 7:00 P. M. Dinner for National Board, Delegates, and wives of Officers and Delegates of the American Medical Association at Woman's Club of Wisconsin. Musical Program furnished by Artist Members of Auxiliary to Medical Society of Milwaukee County. Tickets $1.25.

TUESDAY, June 13, 1933. 9:00 A. M. General Meeting, Roof Room, Hotel Pfister, Mrs. James F. Percy, *Presiding.* 12:30 P. M. Luncheon and Bridge at the Wisconsin Club. Tickets $1.25. 2:00 P. M. †Attractions available for those not wishing to play bridge are Layton Art Gallery, Milwaukee Art Institute, Milwaukee, Museum, Curative Work Shop and Vocational School. Or, †Bus Trip to County Institutions, Milwaukee Children's Hospital Convalescent Home, and Washington Park Zoo. 8:00 P. M. General Meeting of American Medical Association. 10:00 P. M. Informal Dance at Wisconsin Club. Courtesy of State Medical Society of Wisconsin. Hostesses:

*All women attending this Convention whether Auxiliary Members or not are invited to participate in this entire program.

†Bus transportation to be paid by individuals.

Woman's Auxiliary to the State Medical Society of Wisconsin.

WEDNESDAY, June 14, 1933. 9:00 A. M. General Meeting, Roof Room, Hotel Pfister, Mrs. James F. Percy, *Presiding.* 12:30 P. M. Auxiliary Luncheon, Fern Room, Hotel Pfister. Guests and Speakers from the American Medical Association. Tickets $1.00. 4:00 P. M. †Teas in Private Residences. 8:30 P. M. Light Opera, Tickets $1.00.

THURSDAY, June 15, 1933. 9:00 A. M. General Meeting, Roof Room, Hotel Pfister, Mrs. James Blake, *Presiding.* 12:00 Noon. Trip to Oconomowoc Lake District. Luncheon 12:30 P. M., Carnation Milk Plant, Oconomowoc, Wisconsin, Transportation and Luncheon Courtesy of Carnation Milk Company. Or 12:30 P. M. Buffet Luncheon, Crystal Room, Hotel Pfister, Tickets 75c. 2:00 P. M. †Sightseeing Tour of Milwaukee. 6:30 P. M. "Bring Your Husband" Dinner. Fern Room, Hotel Pfister. International-House-Cabaret. Tickets $1.50. 9:00 P. M. President's Reception and Ball, Schroeder Hotel. Hosts: The American Medical Association.

FRIDAY, June 16, 1933. 10:00 A. M. Golf Tournament. All trips start from Hotel Pfister.

Mrs. Rock Sleyster, General Chairman,
Wauwatosa, Wisconsin.

THE STATE AUXILIARY

The Public Relations Committee has found a niche in the general scheme of the medical education of the public, and we are planning that the next few years will be very active ones, profitable both to the physicians and the laity.

Mrs. A. B. McGlothlan, Program Chairman of the National Auxiliary, in her paper, "The Woman's Auxiliary," states very conclusively why we must determinedly carry on this educational work.

"The people of the United States being reasonably literate and intelligent are becoming health conscious and many are seeking information concerning the prevention of diseases. Faddists and fakers have preyed upon this awakened health consciousness with false information and quack cures; commercialists have made capital of it by advertising that their wares possess peculiar health-protecting properties; certain species of commercial writers have seized upon it to fill columns of newspapers, pages of magazines and even whole pamphlets or books with unauthentic or pseudoscientific information.

"An unwary and undiscriminating public is the victim. The great pity of the situation is that the public does not know that it is being victimized and having easy access to little besides such misinformation as that just alluded to, it frequently aids and abets legislators in making undesirable health laws and medical practice regulations for all the people.

"The public has gone 'floundering off from scientific medicine' because we have not been sufficiently diligent in providing for them the right kind of information concerning the prevention and cure of diseases, and in securing their coöperation in the promotion of community health.

"Practically all important organizations of today, groups organized to promote general social progress —the number of which is legion—have the promotion of health as a part of their program.

"In most of such organizations of men, members of the profession have the opportunity to participate, if they care to do so, and to guide the thinking and planning of the group into activities consistent with modern scientific knowledge.

"But doctors, even the specialists in preventive medicine, our public health men, do not have access to women's organizations except by special invitation, which, it is to be regretted, is not frequent enough.

"These organizations which number their memberships by the millions are a powerful educational force; many of their members steer the destiny of a family; each one has a vote and is, therefore, an influence for good or bad legislation.

"Outstanding leaders in the medical profession and in the auxiliaries believe that the women of doctors' families are performing a very distinct service to the profession by meriting and attaining to leadership in the other women's organizations to which they belong, by interpreting particularly the preventive work of the medical profession, personal and public hygiene, and by bringing about community coöperation in health work under professional guidance."

Through the splendid coöperation of our County Presidents and Public Relations Chairmen, Michigan has made great progress in this educational campaign. It is inevitable that these forces will prove themselves far reaching in the near future.

COUNTY PUBLIC RELATIONS CHAIRMEN

Jackson—Mrs. J. C. Smith, 1114 West Washington Street.

Saginaw—Mrs. Frank A. Poole, 118 Cherry Street.

Bay City—Mrs. P. R. Urmston, 1862 McKinley Avenue.

Kalamazoo—Mrs. Chas. L. Bennett, 527 West Lovel Avenue.

Calhoun—Mrs. M. J. Capron, 102 Anne Avenue, Battle Creek.

Oakland—Mrs. E. L. Bradley, 82 Murphy Place, Pontiac.

Wayne—Mrs. R. E. Loucks, 337 West Grand Boulevard, Detroit.

Ingham—Mrs. Robert Brekey, 520 West Morland Avenue, Lansing.

Kent—Mrs. Richard Smith, Grand Rapids.

(Mrs. Edw. G.) Katharine Minor.

JACKSON COUNTY

Mrs. H. L. Hurley entertained thirty-five members of the Women's Auxiliary to the Jackson County Medical Association at her home in Jackson on Tuesday evening. Dinner was served followed by the business session under the direction of the president, Mrs. G. A. Seybold.

Mrs. E. S. Peterson gave a complete report on medical legislation in Michigan. Mrs. Thomas E. Hackett, program chairman of the year, was in charge of the program of the evening. Mrs. Margaret Denley Brier sang two arias from the opera "Samson and Delilah." She was accompanied by Mrs. Grace Winchester Wilson. Prefacing the songs Mrs. Hackett read a synopsis of the opera, which completed the presentation.

Miss Esther Chivers related her experiences while in Europe, the past summer. She spoke of attending the play "Everyman," which is given during the festival season at Salzburg annually. This was in keeping with the Lenten season.

Hostesses for the day with Mrs. Hurley were: Mrs. E. A. Thayer, chairman; Mesdames G. A. Seybold, Frank Van Schoick and John Van Schoick.

KALAMAZOO

The March meeting of the Kalamazoo Woman's Auxiliary to the Michigan State Medical Society was held March 21, 1933, at the home of Mrs. Clark B. Fulkerson with Mrs. James G. Malone as the assisting hostess. Thirty members were present to enjoy the delicious pot-luck dinner.

Mrs. F. T. Andrews was appointed chairman of the Legislative Committee and Mrs. C. L. Bennett, chairman of the Public Relations Committee at this meeting.

An amusing diversion of the evening was the roll call by the members, each member telling her name,

†Bus transportation to be paid by individuals.

her husband's name, length of residence in Kalamazoo and other interesting personal facts.

A social evening was enjoyed for the remainder of the evening.

(Mrs. Frederick M.) WILMA G. BOYLE.
Secretary.

OAKLAND COUNTY

The Oakland County Medical Society held its February meeting Friday, the 17th, at the home of Dr. and Mrs. Frank A. Mercer, Pontiac, jointly with the Women's Auxiliary. The meeting was conducted by the women and consisted in an address by Mr. Lee A. White of the *Detroit News*. Following the address tables were set for cards, after which refreshments were served by the social committee. At the close of the evening, the women honored Mrs. Neafie by presentation of a traveling bag, and Dr. Neafie, president of the Society, was presented with a wrist watch, as a token of esteem from the doctors of the County Society.

Mr. William Hartman, a Pontiac lawyer, talked to the Women's Auxiliary, at their March meeting, his subject being "Poor Laws from the Doctor's Viewpoint." The luncheon was held in the Willow Tea Room, Royal Oak, with about twenty-two present.

Members are looking forward to the April 21 meeting when they will be guests at luncheon of Parke, Davis & Co., makers of pharmaceutical and biological products, in Detroit.

(Mrs. R. H.) HELEN C. BAKER,
Publicity Chairman.

WAYNE COUNTY

The last monthly meeting which was held in the Wayne County Club rooms by the Woman's Auxiliary to the Wayne County Medical Society was the scene of an interesting affair, when Professor T. Paul Hickey, who was introduced to the assembly by Mrs. H. Wellington Yates, gave a very interesting talk on the "Background of the Adult."

Through the courtesy of Cameron McLean, Miss Ethel Orr presented a delightful musical program at this meeting including the Ladies' Trio for the pleasure of the Auxiliary and their friends. Social hour and tea followed the program with Mrs. V. A. Bacon and Mrs. H. W. Plaggemeyer acting as hostesses.

Mrs. Frank W. Hartman, vice president and Program chairman of the Woman's Auxiliary, extended her hospitality to the members of the Board of Directors at a luncheon at her home on Tuesday, March 7; and after luncheon, the Nominating Committee was appointed by the Board. The committee consists of: Mrs. E. L. Whitney, chairman; Mrs. J. M. Robb, Mrs. R. E. Loucks, Mrs. Charles J. Barone, and Mrs. W. H. Rieman.

Through the kind efforts of Sally Woodward, who is the radio announcer over Station WWJ for the Club women and Society folks in Detroit, the Board of Directors accepted an invitation to be shown through the Detroit News Building on Monday, March 13, and after the trip through the building a broadcasting program was presented by the News Players and then tea was served.

On Wednesday, March 15, Mrs. Claire Straith, president of the Auxiliary, entertained the Board of Directors at a Saint Patrick's bridge for luncheon at the Ingleside Club, Detroit. Those who were present were as follows: Mrs. J. H. Dempster, Mrs. Charles J. Barone, Mrs. J. M. Robb, Mrs. H. R. Leibinger, Mrs. W. H. Rieman, Mrs. Alex Cruikshank, Mrs. E. G. Minor, Mrs. C. A. Paul, Mrs. E. L. Whitney, Mrs. L. O'Recklin, Mrs. W. L. Hulse, Mrs. A. O. Brown, Mrs. P. Bernstine, Mrs. R. E. Loucks, Mrs. Floyd Straith, and Mrs. L. T. Henderson.

Another joyous affair of the season was the Musical Tea, the third in a series, given by the Woman's Auxiliary to the Wayne County Medical Society on Sunday afternoon, March 26, in the Club rooms. About one hundred and fifty persons were in attendance at this musical. It was a rare treat to have the opportunity of hearing such a famous artist as Gladys Luloff-Hyde, authority and interpreter of Olde Musicke, and of international reputation, play the Clavichorde, the Virginal, and the Piano in costume by candle light.

Mrs. H. J. Marshall, pupil of the late Emil Tiferro and Marcus Kellerman, Detroit, famous baritone and teacher, was another interesting feature of the afternoon. She whistled several numbers, including "Mighty Like a Rose," "Sylvia," "Sweet Mystery of Life," and "Love's Old Sweet Song"; she also gave a reading entitled, "The Fool's Prayer." Her whistling and handling of breath is an art in itself.

The Woman's Auxiliary and the Wayne County Medical Society held another joint social evening and entertainment on Tuesday, April 4, in the auditorium of the Maccabees Building, Detroit.

The program arranged by Mrs. Frank W. Hartman, program chairman of the Auxiliary, and Dr. Allen McDonald, chairman of the entertainment committee of the Wayne County Medical Society, was presented as follows:

1. Lillian Marshall, mezzo soprano and reader.
2. The Spartan Singers, nationally recognized quartette from Station WXYZ.
3. Judge Robert M. Toms—Lecture on Human Anatomy, illustrated by chalk drawings demonstrating important new discoveries.
4. Professor Edwin Craves—novelty dancing in costume.
5. C. C. McGill from the Board of Commerce—a monologue.
6. Lillian Marshall—Dramatic Sketch.
7. Mr. Thaddeus Wronski—Short talk on behalf of the Detroit Civic Opera.

Dr. Shore, Dr. Hookey and Dr. Connelly gave a Dramatic Sketch called the "Cure." These doctors are members of the Noon-day Study Club.

Judge Toms' lecture on Human Anatomy illustrated by chalk drawings is as follows:

"To accurately impersonate the old-fashioned or garden type of lecturing physician, I presume I should affect a Van Dyke beard and sprinkle iodoform on my clothes, but today the modern or hothouse variety of doctor smells of gin rather than iodoform and dresses like movie actors do, or like stock brokers did.

"Time was, when you were sick in a vulnerable spot, that you called the nearest doctor, who emptied his pipe, filled up the coal stove, put on his shoes, grabbed a handful of calomel tablets and came right over. Nowadays when you have a whale of a tummy-ache, you 'phone the physicians' exchange, where the girl tells you that she will locate Dr. So-and-So and have him call you. Eventually she locates the doctor in the card room of the D. A. C., but it looks as if he had a flying start on a 700 rubber of contract, so he phones one of his assistants who is calling on a nurse, and says, 'Drop whatever you're doing and call up Arl. 9424.' Instead of dropping what he is doing the assistant takes his time, adjusts his tie, smooths his hair and asks his girl friend to get the number. When you finally get to speak to him he asks, 'What seems to be the trouble?' 'Trouble!' you say. 'That is what I want you to find out. I think I'm poisoned.' 'Sorry,' he says, 'our practice is limited to discases of the third metacarpal joint of the left index finger,' and hangs up. Even the gangsters have followed the doctors' example and now have specialists known as 'finger men.' Well, by this time your wife has

given you about a pint of milk of magnesia, or, if there's any left from Saturday night, a good shot of Scotch, and has put you to bed with a hot water bottle, and by the time you have dug up a doctor who specializes in tummy-aches, you don't need him.

"Or suppose twenty years ago you had a backache. You went to the wall phone, turned the crank one long-two short-one long. The doctor answered, and came right over. He asked you, 'How do you feel?' You said, 'Ouch, rotten.' 'Shucks,' he said, 'just a little cold settled in your back. Have the missus rub you good with this Sloan's Liniment. And here's some calomel for good measure. You'll be all right by morning.' And damned if you weren't. But just dare to have a backache now and what happens? You drag yourself down to the David Whitney Building, and are ejected in succession from the offices of a child specialist, a neurologist, an eye, ear, nose and throat man, an obstetrician, and a pediatrician, and finally the elevator starter sends you to a doctor out at Connors and Warren Avenues, who cured his brother-in-law of hemorrhoids. Out you go to Dr. Zilch, who handles real estate and insurance in his spare time, and he sends you back to the Professional Building, to have profile, full length and bust x-rays taken. Dr. Zilch speaks and writes such queer English that the roentgenologist understands that your pain is in the right clavicle and kodaks accordingly. By the next day, of course, your back is as good as new—doesn't hurt a bit—but you feel that you have to do the right thing by Dr. Zilch, so you go back to get the x-ray report. 'Deep calcification of the head of the humerus. Focus of infection probably in teeth.' 'Dear, dear,' says Dr. Zilch, 'if not remedied this may result in impotency.' Well, even at your age that scares you, so you sink 300 bucks in a quartz lamp outfit and use it conscientiously on your right clavicle and scapula for eight months and sure enough—your backache never comes back to ache.

"Well, then comes the matter of paying the bill. When you met old Dr. Elihu Ezekial Witherspoon in Spencer's Drug Store about three months after your recovery, you said, 'Doc, I owe you some money, don't I?' And he says, 'Do you? Oh, sure, I'd forgotten about it.' 'How much is it?' you ask. 'Oh, about two dollars and a half and thirty-five cents for the liniment. No hurry about it, though.' And just to show that you like the old Doc, in a month or two more you send Junior over to his house with $2.85 and your wife sends along a plate of cocoanut drop cakes covered with a paper napkin, and in a few days his wife sends the plate back with some chocolate hermits on it. But the old order changeth—and how! The next morning after you get home from the David Whitney Building, the postman delivers one of those window envelopes and after opening it you read, 'Drs. Clarence Augustus Cottington, Ferdinand De Lyle Brackford, J. Millington Asbury, Everson Wastover Armbruster and associates, Suite 1401-70 David Whitney Bldg., Bureau of Auditing, Division of Accounts, Department of Credits, Invoice B7439. Your order No. 642. Terms: net, 30 days, no discount, F. O. B. Harper Hospital.' Then you notice at the top of the sheet after one of the names, the letters M.D. and you recall the letters on the cornerstone of the Union Trust Bldg., and realize that *M* means a thousand and *D* means 500, and an invoice means dollars and you drop dead—practically. Two days later you meet Dr. Armbruster going into the main dining room of the Club and he gives you such a funny look—although you probably had a funny look before he gave it to you—that you know he is wondering why you haven't paid his—or their—bill, so you blow your nose noisily and decide to have lunch alone in a dark corner of the grill. And when you get to thinking of the bill you don't want any lunch and decide just to buy an apple from the nearest vendor."

Mrs. Leslie T. Henderson,
Publicity Chairman.

GENERAL NEWS AND ANNOUNCEMENTS

Dr. J. J. Rooks, fifty-six, died at his home in Grand Rapids, April 17, 1933.

Dr. A. M. Campbell, Grand Rapids, returned April 15 after a winter spent in Florida.

The Upper Peninsula Medical Society will hold its annual meeting in Escanaba August 10 and 11, 1933.

Urge your senators and representatives to support the bill amending the present medical practice act.

The Committee on Survey of State Health Agencies held a forty-eight hour session on April 29-30, 1933, in Pontiac.

Dr. G. H. Southwick was elected Chief of Staff of Butterworth Hospital and Dr. H. J. Pyle was elected to the same position at Blodgett Hospital.

Rev. Eugene Spoehr, father of Dr. Eugene Spoehr of Ferndale, Michigan, died at his home in Pennsylvania early in April.

The American Medical Association convenes in annual session in Milwaukee the week of June 12, 1933. Write for hotel reservations.

Michigan should have a large registration at the A. M. A. Milwaukee meeting June 12. Air and boat lines make Milwaukee easy of access.

Dr. A. Vernor Moore, Grand Rapids, has been appointed general Chairman of the Social Committee on Arrangements for our annual meeting in September.

Dr. Walter Parker of Detroit is a delegate to the international congress of ophthalmology which meets in Madrid, Spain. Dr. Parker will be absent about six weeks.

A questionnaire on Birth Control was mailed to all members by the officers of the Section on Gynecology and Obstetrics. If you have not done so, return it in the stamped envelope that was enclosed.

Dr. J. M. Robb, President of the Michigan State Medical Society, addressed the Calhoun County Medical Society on April 4. His subject was, "Extrinsic Earaches or Headaches." He also discussed the subject of Medical Economics and Medical Legislation.

The Detroit Roentgen Ray and Radium Society, which consists of members in southern Michigan as well as Detroit, were the guests of the Roentgenological Department of the University of Michigan Medical School on April 6. Dr. Hodges and staff provided a very interesting and instructive program.

The Wayne County Medical Bulletin publishes each year the number of papers written by members

of the Society and published in the various medical journals. During the year just closed, the total number published was sixty-one. Of this number, by far the largest to appear in any medical journal was thirteen in The Journal of the Michigan State Medical Society.

The sixtieth annual meeting of the Northern Tri State Medical Society was held at La Porte, Indiana, April 11, 1933. Dr. S. O. Larson of La Porte was elected President; Dr. Edward P. Gillette, Toledo, Vice-president; Dr. G. E. Jones, Lima, Ohio, Secretary; and H. E. Randall, Flint, Michigan, Treasurer. The next meeting will be held in Flint on the second Tuesday of April, 1934.

Dr. William Fowler of Detroit entertained the ophthalmological club at the Wayne County Medical Society club rooms on April 5. Mr. George Catlin, Detroit historian, read a very interesting paper on the Early Medical History of Detroit, dealing particularly with the medical history of the French regime. "Weelum" read several of his poems in the Scottish dialect which were appreciated by all.

The Michigan supreme court within the past month affirmed a decision by a Detroit circuit court judge that a needle left in any part of a person's body following an operation is prima facie evidence of malpractice. The patient, who had a needle left in his body following an operation for appendicitis in 1928, was awarded $1,250 damages. This is said to be the first case in Michigan in which the expert testimony of physicians has not been deemed necessary.

The Alumni Association of the Detroit College of Medicine and Surgery are arranging plans for an all-day clinic on June 5, 1933, with a banquet in the evening. The clinic is free to all members of the medical profession of the State whether they are graduates of the Detroit College of Medicine or not. President Larsson of the Alumni Association is in correspondence with a couple of leaders of the medical profession. We hope to be able to give the program in full in the next number of this Journal. A feature of the evening dinner will be vocal and instrumental music by musicians of note.

A bronze tablet will be placed in position in the Hillsdale Hospital, Hillsdale, Michigan, in honor of the late Dr. Walter Hulme Sawyer. The inscription of the tablet expresses the appreciation of the services of the late Dr. Sawyer to the University of Michigan, of which he was a member of the Board of Regents for so many years, to his community and to the medical profession of the State. Dr. Sawyer was a rare personality whose ability and judgment made every organization with which he was connected his debtor. The date of the installation of the bronze tablet is May 9, at 3 P. M. The presentation will be made by President Ruthven of the University of Michigan. Dr. J. Milton Robb, President of the Michigan State Medical Society, is to represent the medical profession at this event.

DR. CREE HONORED

Dr. Walter J. Cree of Detroit began the practice of medicine on March 3, 1883. Dr. Cree was a graduate of the old Michigan College of Medicine, which amalgamated with the Detroit College of Medicine in 1886. The completion of his half a century of practice of medicine was marked by a very pleasing event when the Seniors of the Wayne County Medical Society assembled on April 17, 1933, at noon, to do him honor. Dr. A. P. Biddle presided. An address was given by Dr. Angus McLean, who said among other things that when Dr. Cree started the practice of medicine there was no Christian science, no osteopath and no chiropractor, and so on. He recounted the fact that Dr. Cree's active medical life extended over the most prolific period of medical history. Dr. John E. Clark, the oldest member of the society, was present and also complimented Dr. Cree on attaining his half century of practice still retaining his youthful appearance, as the doctor is only seventy-two years old and could still look forward to years of activity. Addresses were also made by Drs. A. N. Collins, J. A. Wessinger of Ann Arbor, and Cyril K. Valade of Detroit. Among the out-of-town guests were Drs. Herman Holden of Trenton, Dr. Hugo Erickson of Birmingham.

Dr. Cree was made an honorary member of the Wayne County Medical Society in 1926. He is one of the oldest members of the Detroit Academy of Medicine and has figured largely as secretary to the numerous medical organizations with which he has been connected since his graduation. He is at present a member of the Pan-American Medical Association and the Association of Military Surgeons. Dr. Cree has a habit of taking a vacation during the winter months in Cuba, Panama and Mexico. The Journal likewise extends congratulations on the completion of his half a century of practice.

DEATHS*

DR. G. DEVERE MILLER

The Tri-County Medical Society with sincere sorrow and regret record on February 16, 1933, the passing of the dean of surgeons in this community, Dr. G. Devere Miller of Cadillac.

Dr. Miller was the son of the grand old man of medicine, Dr. Carroll E. Miller, who came here as one of the earliest pioneers in the city of Cadillac and practiced medicine for forty-seven years, passing on seven years ago this January.

Dr. Miller was born in Neillsville, Wisconsin, on May 8, 1876, and came with his parents to Cadillac in 1879. He attended and graduated from the local high school, attended the Michigan State College and graduated from the Rush Medical College of Chicago in 1902.

He came directly to Cadillac and associated in practice with his father. He gradually assumed the greater part of the work, which after the establishment of the Mercy Hospital of Cadillac twenty-five years ago developed into an extensive surgical practice including every line of surgery, with such a high degree of success that his ability was recognized throughout the northern part of the state.

While Dr. Miller's greatest interest in life was his profession and he was ever ready to counsel and assist his colleagues, he also found time to take an interest and assist in civic affairs, especially in outdoor sports. He was proficient in hunting, fishing,

---

*The death notices which appear from month to month in the Journal are not intended to supplant any eulogium or appreciation or resolutions county societies may wish inserted in this Journal. Often we are unable up to the time of going to press to obtain more than some factual details in the life of the deceased. We are painfully aware that these notices fail to express in any way the influence exerted on the community, or the loss sustained by the friends and associates of the departed member.—Editor.

tennis and horsemanship, also an ardent advocate of conserving the natural resources of his community.

Dr. Miller was married in 1899 to Miss Lina Smelser and to them were born three children, a son who died in infancy, and two daughters. One daughter died three years ago. The second daughter is now the wife of Dr. Showalter, who will carry on the business of Dr. Miller.

Dr. Miller was Chief of Staff of Mercy Hospital, president several times of the Tri-County Medical Society, member of the State Medical Society, the American Medical Association and Fellow of American College of Surgeons. He was also a member of the Elks.

The passing of Dr. Miller from carcinoma, with his long period of suffering which he had to bear and his knowledge of the progress and outcome of the disease, gave to his friends and colleagues a lesson in fortitude and courage which would be hard to equal. For several months prior to his death, he had predicted the time of the end almost to a day. He met his friends with a smile and continued to practice his profession, even conducting an operation three days prior to his death.

DR. GEORGE SLOCUM

Dr. George Slocum, professor of ophthalmology at the medical school of the University of Michigan, died suddenly at his home March 24, 1933. The cause of death was angina pectoris. Dr. Slocum was born in central New York State sixty-eight years ago. He received his medical education at the University of Michigan, where he was graduated in 1891. After a few years in general practice he returned to the University, where he became a special student under the late Dr. Carroll, who was then professor of ophthalmology. Dr. Slocum was associated with Dr. Walter Parker for twenty-seven years and on Dr. Parker's resignation as professor of ophthalmology last summer Dr. Slocum became head of the department. Dr. Slocum was a student all his life, as a teacher he had few equals.

Dr. Slocum was a member of the American Association for the Advancement of Science, the American Medical Association, Michigan State Medical Society, Washtenaw County Medical Society, American Academy of Ophthalmology and Oto-Laryngology, the American Ophthalmological Society, the National Geographic Society, Rotary Club and other organizations. He is survived by his wife and four sons.

DR. ROBERT A SEABORN

Dr. Robert Seaborn, 916 East Grand Blvd., Detroit, died at his home on April 2, 1933. He had practiced in Detroit since 1892. Dr. Seaborn was a graduate of the Detroit College of Medicine and a member of the Wayne County Medical and Michigan State Medical Societies and American Medical Association. He is survived by his widow Jean, one son, Dr. Arthur J. Seaborn of Detroit, and one sister, Mrs. R. Bird of Brighton, Ontario.

DR. L. W. HAYNES

Dr. Lon West Haynes, forty-nine years old, of 919 Lawrence Ave., Detroit, physician and surgeon, died on April 19, 1933, in Harper Hospital, Detroit, after a three-weeks' illness. Born in Hillsboro, Ohio, he attended the University of Michigan, graduating in 1908. He came to Detroit in 1910. Dr. Haynes was a Fellow of the American College of Surgeons, a member of the American Medical Association, the Michigan State Medical Society, the Wayne County Medical Society, and the Detroit Society of Gynecology. He is survived by his widow, Josephine D. Haynes; a son, Charles Hawley Haynes, and a daughter, Mrs. George J. Huebner, Jr., of Detroit; his mother, Mrs. Charles E. Haynes, of Hillsboro, Ohio, and a brother, Roy D. Haynes, of Washington, D. C.

DR. RAY CONNOR

Dr. Ray Connor, of Detroit, was found dead at the wheel of his automobile April 21, 1933. His death was attributed to a heart attack. Born in Detroit in 1877, he was educated at Williams College and received his doctor's degree at Johns Hopkins University in 1901. After spending two years as assistant and house surgeon at the Manhattan Eye and Ear Hospital in New York, he came to Detroit to practice. Dr. Connor was of a kindly disposition who made many friends and no enemies. He was a member of the staffs of Providence and the Children's Free Hospital. He was a fellow of the American College of Surgeons and the American Academy of Medicine and a member of the American Medical Association, the Michigan State Medical Society, the Wayne County Medical Society, the American Academy of Ophthalmology and Otolaryngology, the American Laryngology, Rhinology and Otology Society, the Detroit Otolaryngology Society, the Detroit Ophthalmology Club, the Detroit Academy of Medicine, the Detroit Athletic Club, the Detroit Boat Club, the Meadowbrook Club and the Country Club. Dr. Connor, who was unmarried, lived at the Wardell Apartment Hotel. He is survived by a brother, Dr. Guy Connor.

DR. CHARLES P. FELSHAW

Dr. Charles P. Felshaw of Holly, Michigan, died at his home on April 8, 1933. He was the oldest graduate of the Detroit College of Medicine, having attained the age of 92 years. After studying under a physician at Jackson and attending lectures at the University of Michigan, Dr. Felshaw began medical practice at Ortonville in 1867. He also owned a drug store in the village, and in common with all physicians at that time did dental work. He later entered the Detroit College of Medicine and Surgery and graduated in 1876. Difficulties with his legs caused him to retire about two years ago.

DR. CYRENUS G. DARLING

Dr. Cyrenus Darling, for many years at the head of the Department of Surgery of the Medical School of the University of Michigan, died at his home, Ann Arbor, on April 21. Dr. Darling was born in 1856. He was a graduate of the University of Michigan and was on the faculty from 1890 to 1919, during which time he made many contributions to the practice of surgery. In 1911 he founded the St. Joseph Mercy Hospital at Ann Arbor. Dr. Darling was president of the Michigan State Medical Society in 1926. His interests extended beyond his professional activities inasmuch as he was mayor of Ann Arbor in 1894. In 1931 a bronze bust of Dr. Darling, the work of Carleton W. Angell, was presented to the University by his colleagues. Dr. Darling is survived by two sons, Dr. Cyrenus G. Darling, Jr., of Pontiac, and Dr. Donald B. Darling, dentist, in California.

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII JUNE, 1933 No. 6

CONTENTS

Childhood Tuberculosis. Harry C. Metzger, M.D. 349
Epidermophytosis of Hands and Feet. Noah E. Aronstam, M.D. 352
Retro-pharyngeal Abscess with Hemorrhage and Fatal Outcome. William S. Conway, M.D. 354
The Treatment of Arthritis by Artificial Fever: Preliminary Report of Twenty Cases. J. M. Berris, M.D. 355
Diabetes in Twins. Franklin B. Peck, M.D. 359
Management of the Advanced Cancer Patient. Harry C. Saltzstein, M.D. 360
Treatment of Chronic Endocervicitis. F. G. H. Maloney, M.B. (Tor.), F.A.C.S. 362
The Intravenous Use of Triple Typhoid Vaccine in Gonorrheal Infections. L. B. McMillan, M.D. 365
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 368
Editorial:
That Social Values Might Be Preserved 371
Contract Practice 371
Checking Up on the Other Doctor 372
Editorial Notes 372
Society Activity 374
County Societies 377
Woman's Auxiliary 379
General News and Announcements 379
Obituary 381
The Doctors' Library 382

CHILDHOOD TUBERCULOSIS*

HARRY C. METZGER, M.D.†
DETROIT, MICHIGAN

In our modern civilized world, tuberculosis still remains a very important public health problem and one which has not been completely solved. It is true that our death rate has decreased 50 per cent during the past fifty years, mainly during the past twenty years. In spite of the fact that the cause of this disease, the tubercle bacillus, was discovered in 1882, the x-ray in 1895, and the tuberculin test in 1907, very little real progress in controlling the disease was accomplished until after 1915. So that, even today, in a certain age period of life, tuberculosis is the leading cause of death, that age period being between eighteen and thirty-five years. The reason for this is probably due to the lethargy on the part of the medical profession and the lay public to accept certain proven facts.

The idea is still prevalent amongst lay people that tuberculosis is an inherited disease and that because some member of our family died of tuberculosis, it is quite logical for one of us to have the disease. Shortly after Koch in 1882 discovered the germ that is responsible for tuberculosis, it was conclusively proven that this disease is an acquired one. It has been repeatedly shown that a mother who has tuberculosis or even

*Read before the North End Clinic Staff meeting, April 3, 1933.

†Dr. Metzger is a graduate of the University of Michigan, 1924. He was intern at Harper Hospital, Detroit, 1924-25; resident physician in pediatrics and contagious diseases, Minneapolis General Hospital, 1925-28. He pursued post graduate work in pediatrics in Berlin and Vienna, 1928-29. His practice is limited to pediatrics.

dies of the disease may give birth to a baby who is entirely free of tuberculosis. However, there is one provision there, and that is that the baby be removed completely from the mother at birth. It is a natural sequence of events that if a mother who has tuberculosis nurses and cares for her baby, she will infect that child with the germ and this ultimately will probably result in disease in the child. In other words, tuberculosis is a disease acquired during life from some other individual who has the disease.

Our progress in recent years has been along two main lines, first in the curing of patients who already have the disease, and second in the prevention of the disease in healthy individuals. In tuberculosis, like many other diseases in medicine, we believe the battle will be won in the preventive field rather than in the curative one. It is true that we are curing more people with this disease today than ever before because of our newer surgical methods, but we sincerely believe that our future progress will be in discovering the disease in its earliest stages and in its prevention.

With this in mind, extensive study has been carried out in the study of the disease in school children. The medical profession had long felt that the disease was being discovered in adults altogether too late, this resulting in the high mortality and the poor results obtained in these individuals. The disease was studied in the school child in the hope that the early stages of tuberculosis could be detected and the disease prevented from reaching a grave form.

This work was begun in Wayne County three years ago. Children between the ages of five and twenty were studied. We utilized in this work two things that we had had at our command for a number of years: first the test for tuberculosis and second the x-ray machine. In the various localities where the test was given, request blanks were distributed in the schools, and those children whose parents had consented to the test were given it.

The test that was used in this survey is called the skin test for tuberculosis or the Pirquet test. It is a very simple test and entirely harmless. The tuberculin material, which contains no living germs, is rubbed into the superficial layers of the skin with a special scarifier. This is allowed to dry and the response of the body to this is noted after forty-eight hours. The response of the child to this test gives us a great deal of information. If the child fails to respond or *has a negative tuberculin test,* we report to that parent that up to this stage of life this child has not been in contact with the tuberculosis germ and has not been infected. However, we do recommend the repetition of this test at various intervals of life, namely, early childhood, puberty, and adolescence, to discover early infection.

If the child responds to the test or *has a positive tuberculin test,* we report to that parent that this child has been in contact with the tuberculosis germ and has been infected. Now, whether this infection has resulted in disease has to be discovered through other methods. Many children and adults are infected with the germ and yet never become diseased with it. This depends on numerous factors, namely, the dose or the amount of infection and the physical status of the child at the time of infection. For instance, we are aware of the fact that a child recovering from measles or whooping cough is more apt to be diseased with the tuberculosis germ, if infected, than at any other time. Likewise the hygienic surroundings of the child play an important rôle.

This important information of a positive tuberculin test is of a great value regardless of whether that infection has resulted in disease or not. The younger the child the more we are sure that that infection has resulted from the home environment of that child. The mere hearsay that no member of a family has tuberculosis means nothing, because we know that this disease can be present in adults months or years before manifesting itself in any outward signs. If an individual waits for the classical symptoms of tuberculosis, namely, coughing, hemorrhaging, night sweats and loss of body weight, that individual will usually be in the end stage of the disease which will terminate fatally. So that, until we have convinced such a family that every individual coming in close contact with that child should have a clean bill of health in reference to tuberculosis, we do not feel at ease about this child's positive tuberculin test. A careful examination by a physician of every member of that child's environment is our only safeguard for that child. So that by discovering a harmless infection in a school child, we frequently uncover an adult in the early stages of the disease, when it still lends itself to treatment and can be cured.

Having discovered the infected child, we then must determine whether this infection has been harmless or otherwise. Through extensive studies it has been shown that the only accurate method of detecting this is through the x-ray machine. All our other methods may fail us in discovering children diseased with the tuberculosis germ. The history we obtain from parents may be entirely negative, that is, we may get no complaints from the parent of poor appetite, fatigue, loss of weight, frequent chest colds, or pallor and still the x-ray may prove to be positive. However, we may get some of these symptoms in our history. Our physical examination through our senses of seeing, hearing, and touching may be entirely normal and still the x-ray of the chest may show trouble. So that we have established the rule that every child having a positive tuberculin test is requested to have an x-ray examination of the chest. The x-ray film reveals absence or presence of disease. In most instances there is no evidence of disease, meaning that the infection thus far has been entirely harmless. If the child is not in contact with an adult with tuberculosis, a positive tuberculin test in itself is no cause for worry.

The disease as found in the child is spoken of as the "Childhood Type of Tuberculosis" in contradistinction to the type as found in adults. The two diseases differ very radically, which is probably one of the reasons why it was ignored in previous years. The childhood type of tuberculosis is a disease mainly of the glandular structure in the chest. While it begins in the lung, this organ is never badly damaged, but the brunt of the disease is carried by the glands in the chest. Further characteristics are that the childhood disease is a mild one and frequently has a tendency to heal of its own accord. This explains the frequent absence of symptoms in these children. However, none of these factors detracts from the importance of discovering the childhood type of tuberculosis. It can and frequently does go on to a fatal termination in children, as our state health reports show that tuberculosis leads the list of diseases as a cause of death the first twenty years of life. Comparative figures for 1931 show tuberculosis was responsible for 453 deaths the first twenty years of life, while diphtheria caused 151, whooping cough 183, scarlet fever 94, and measles 22. Further than this, it has been conclusively shown that this childhood disease is the predecessor to the more fatal adult disease. It has been shown that about three-fourths of these children with this early form of tuberculosis will have adult tuberculosis in adult life unless something is done about it. In other words, childhood tuberculosis sets the stage for adult tuberculosis. Hence, our object in discovering the disease in the child is to prevent the adult type of disease from developing. The childhood disease is the earliest form of tuberculosis. It is in a stage when it still can be cured. True, it is usually a mild disease, but this mild disease may result in a fatal disease later in life.

In controlling the childhood disease, we must first remove the child from further infection, and second, we must deal with the child himself. In reference to the child, we must place that child in the best possible physical condition. Other diseased processes must be corrected. The rest and physical activity of the child must be adjusted to prevent fatigue. Frequently these children require additional rest during the day and at night. Often their school curriculum must be adjusted. Competitive sports and physical exercise usually require curtailing. Competitive sports are usually advised against. The various diseases of childhood which most children are subjected to are given careful consideration in these children to avert a possible breakdown of the childhood disease. Likewise during the periods of excessive strain as at puberty and adolescence, these children bear watching, as it is a common observation that girls during the period of adolescence frequently take down with the more fatal adult type of disease.

In Wayne County where the work was begun in the fall of 1930 through the efforts of the Tuberculosis and Health Society of Detroit and Wayne County, approximately 11,840 tests have been given. Over 90 per cent of these tests ranged between the years of five and fifteen. Twenty-five per cent of these children reacted to the tuberculin test, meaning that out of every hundred school children, twenty-five had been infected with the germ. Four and two-tenths per cent showed actual disease, while 1.3 per cent were suspicious of having the disease. In other words, out of every hundred children given the tuberculin test approximately five bear close observation. In addition, six high

school students already showed the adult type of disease and required active sanitarium treatment, but they responded well to treatment, because they showed the early adult form of the disease.

In conclusion, I do not believe it is at all difficult for you to see the value of discovering the childhood type of tuberculosis in our fight against this ravaging disease. We must admit that tuberculosis, especially in the young adult, is a public health problem that has not been entirely solved. We believe by skin testing all school children at various intervals of life, thereby discovering the infected child, and then by x-raying the chests of all reactors, thereby discovering the diseased child, we have a good solution to the problem. By discovering the infected child, we indirectly seek out the adult who probably still has an early curable form of the disease. Hence, the discovery of the infected child aids materially in the prevention of tuberculosis. Finally, we have uncovered the disease in the child in its earliest form and therefore are able to cure it and prevent it further from progressing to the more fatal adult form, which still remains a grave disease and often causes death.

EPIDERMOPHYTOSIS OF HANDS AND FEET

NOAH E. ARONSTAM, M.D.
DETROIT, MICHIGAN

Epidermophytosis affects the skin in various ways, depending a great deal upon the mildness or intensity of the morbid process. In itself it is a mere surface affection, but owing to the invasion of secondary infections caused by a variety of organisms, the malady may assume enormous proportions. Its favorite sites of predilection are the lateral aspects and interdigits of both fingers and toes, the plantar and palmar surfaces of feet and hands, and the ankles and wrists.

Its etiologic source may be sought in fungus habitats, such as swimming pools, shower baths, fungus infested shallow waters, bathing beaches and by contact or transmission from person to person.

Epidermophytosis is a composite of various species of trichophyton, such as t. gypsum, t. cerebriforme, t. migroides, t. rosaceum, t. violaceum, t. crateriforme and other strands.

For purposes of study epidermophytosis may be classified as follows:

1. Epidermophytosis squamosa.
2. Epidermophytosis rosacea.
3. Epidermophytosis macerata.
4. Epidermophytosis vesiculosa et bullosa.
5. Epidermophytosis exfoliativa.

EPIDERMOPHYTOSIS SQUAMOSA

This is the most common form of epidermophytosis, mostly encountered on fingers and palms, toes and soles. It occurs in the form of slightly scaly lesions, arranged on the palms and soles in a serpentine, curved, gyrate manner, while between the toes and fingers it manifests itself in concentric or irregular filmy, squamous areas. It may or may not be accompanied by pruritus, which if present is more pronounced at night. It usually attacks those who perspire freely and is due to a variety of fungi, some of which have been enumerated before.

EPIDERMOPHYTOSIS ROSACEA

It is mostly met between fingers and toes, exposing to view denuded zones variously shaped, wherefrom the horny layer of the epidermis has been removed either spontaneously or by scratching. The itching as a rule is more intense than in the former variety.

EPIDERMOPHYTOSIS MACERATA

This is but an aggravated form of the former and manifests itself in more or less extensive areas of macerated lesions; they are chiefly situated between the toes and on the plantar surfaces, occasionally encroaching upon the ankles in the form of irregularly shaped erosions. The pruritus is very pronounced in this type and the dermatologic picture resembles that of pemphigus foliaceus, from which it must be differentiated.

EPIDERMOPHYTOSIS VESICULOSA ET BULLOSA

This occurs in persons who have been the sufferers of either the squamous or the rosaceus type. When we are convinced the latter process is about at a standstill, we are not infrequently surprised at the abrupt appearance of vesicles or bullæ at the site of the former lesions, so to speak, over night without any prodromata or warning. The skin exhibits bullæ and vesicles moderately tense to the touch and accompanied by severe pruritus, that is only relieved upon evacuating their contents, which is of a viscous or serous character. After evacuating the lesions the pruritus is markedly relieved. In a few days the superimposed walls of the vesicles desiccate and eventually desquamate. The soles of the feet and palms of hands, as well as the wrists and ankles, are the favorite sites of attack. In contradistinction to the former type, it does not lay bare the cutis vera, nor does it manifest itself in the form of vividly macerated or eroded areas. When the entire morbid process is completed, the skin remains red and tender and very sensitive to external irritation of any sort. Occasional flare-ups may be expected and the process may be prolonged indefinitely and not infrequently superadded by a new morbid phase of a pityriatic nature. Chaps or fissures are one of the late symptoms and the itching is unendurable; exfoliation is slight, and the site of the dermatosis remains, even if entirely cured, in a state of persistent erythema, which shows no tendency to disappear, and which Brocq designates as erythrodermie pityriasique en plaques disseminees, or erythema perstans.

EPIDERMOPHYTOSIS EXFOLIATIVA

This is a rare form and follows any of the above described varieties. The patient does not complain of any subjective symptoms, but the skin undergoes a prolonged process of desquamation. This form is usually encountered on the plantar surfaces of the feet and between the toes. The most grotesque figures may be observed, resembling a map in its various configurations. This is the most chronic of all the forms of epidermophytosis. An exaggerated type, though perhaps more rare, may be found in the same localities; it is characterized by thick, leathery adherent lamellæ, beneath which the newly formed skin stands out in striking contrast. These lesions necessitate the frequent removal or denudation of the overlapping fixed epidermis, until the entire area is completely freed of these tenacious elements.

Diagnosis: This should not be difficult if we keep in mind that the etiologic factor is of fungous origin. The microscope is our best aid in a differential diagnosis. Scrapings of the scales on a microscopic slide to which a 10 per cent solution of sodium hydroxide has been added and examined under low power, will reveal the presence of mycelia or spores or both and thus will readily determine the diagnosis. Of course in mixed infections other organisms of the staphylococcus and colon group may be detected. When the latter organisms are superimposed upon the primary cause, we may very frequenlty establish clinically their presence in the form of a putrid, offensive odor in conjunction with marked suppuration. Lymphatic involvement in the form of lymphangitis and lymphadenitis with constitutional disturbances are not infrequently observed. Several of my cases required hospitalization and a prolonged course of treatment. At this juncture we must not forget the blood picture; in all chronic cases of epidermophytosis a complete blood count should be done, to determine the presence of eosinophilia, which is quite marked in persistent cases.

Prognosis: The prognosis is generally good, except in those cases that are complicated by secondary infection and in whom the lymph vessels and lymph glands in the groin and axillæ are implicated in the process with accompanying severe systemic disturbances. In these cases the period of healing is markedly prolonged.

Therapy: Epidermophytosis has received probably more attention in dermatological literature than 50 per cent of all existing dermatoses. From Whitfield's ointment to physiotherapy there is a wide range of remedies recommended for this most obstinate affection. We are led to believe that strong fungicides will materially affect the condition, but in this we are sadly disappointed. I most emphatically decry the indiscriminate use of the so-called Whitfield's ointment or its modified equivalent, kerolysin, and other trade preparations of similar composition. Next to it I dispute the usefulness of the x-ray, which has been repeatedly extolled in dermatologic literature for the

eradication of the morbid process. Trichophyton extract in varying dilutions from 1 to 35 to 1 to 5 is also of questionable utility. Of more evident benefit are the various dyes, such as bismuth violet and neutral acriflavine 1:1,000 swabbed over the affected areas. Potassium permanganate solution is perhaps one of the best therapeutic agents at our disposal. Ointments as a rule are not well borne in epidermophytosis of the feet accompanied by excessive perspiration and should perhaps never be used, particularly so in warm weather. Our aim should be prevention: swimming pools and the floors of shower baths should be frequently inspected for evidence of contamination by various fungi. The laxity wherewith such examinations are conducted speaks for the rising increase in ringworm of the hands and feet.

How shall a case of epidermophytosis of hands and feet be successfully treated? As evidenced from my series of cases, I would tentatively formulate the following procedure: (a) Establish the proper diagnosis by clinical and microscopic findings; if necessary, repeated scrapings of the squamous material should be made and subjected to a painstaking microscopic scrutiny. The physician will be often amply repaid by resorting to such modus operandi. (b) The use of solutions of potassium permanganate from 1:1,000 or 1:500, submerging hands and feet daily for 10 minutes. Chemically pure hyposulphite of soda solution, 1 dram to the pint, has proven of similar benefit. (c) The occasional application of the various dyes enumerated above. (d) Never forget that the parts affected should be kept scrupulously dry by dusting powders. The formula which I frequently use in my practice is as follows:

Acid Salicylici	0.60
Acid Benzoic	0.30
Thymolis	0.12
Mentholis	0.18
Pulv. Magnes. Carbon	4.0
Pulv. Zinci Stearatis	15.0
Pulv. Talci puri q.s.	120.0

M. et ft. pulv. Sig. Dust on affected parts several times a day. (e) The cautious and guarded use of the x-ray, which not infrequently acts as a boomerang by causing a violent dermatitis, which retards the process of repair.

Conclusion: Every case of epidermophytosis of hands and feet should be regarded as an entity *per se* and treated accordingly; energetic measures are unnecessary and may work harm. Judicious and careful treatment according to the procedure laid down above may in the majority of cases lead to a favorable termination.

622 MACCABEE BLDG.

BIBLIOGRAPHY

Adamson, A. G.: Brit. Jour. of Dermat. (Oct., Dec.), 1916.
Ormsby: Diseases of the Skin.
Renaut: La Presse Medicale.
Unna: International Atlas of Skin Diseases.
Williams and Goodman: J. A. M. A. (Sept.), 1925.

RETRO-PHARYNGEAL ABSCESS WITH HEMORRHAGE AND FATAL OUTCOME

WILLIAM S. CONWAY, M.D.†
PETOSKEY, MICHIGAN

R. F., age fourteen months, was admitted to the Petoskey Hospital on February 7, 1933. The following history was obtained from the mother.

The child was taken sick with a cold and what was thought to be influenza on December 26, and was first seen by a physician two weeks later. One week after this, the throat "broke" and the child expectorated a large amount of pus. The patient continued, however, to be ill and one week before admittance was seen by Dr. E. J. Brenner, at which time the child was bleeding from the mouth, nose and both ears. Medical treatment was instituted with only slight improvement and the patient was hospitalized.

Examination at this time showed a markedly anemic child, bleeding from the mouth, nose and both ears. There was also present a severe, left cervical adenitis. Examination of the ears showed a bilateral otitis media with bleeding from both middle ears. A satisfactory examination of the throat was impossible, but there appeared to be a small necrotic or ulcerous area about 1 cm. in diameter in the mucous membrane of the pharynx on the left side, high up. There was no bulging and the site of the bleeding could not be determined. The pulse at this time was 148, the temperature was 100.2 degrees and the red blood count was 2,500,000 and the white blood count was 11,000. Differential count was, large lymphocytes 20, small lymphocytes 3, neutrophiles 69, eosinophiles 2, basophiles 1, degenerated leu-

†Dr. Conway graduated from Loyola University (B.S.) in 1927 and from Loyola University School of Medicine in 1930. He served general internship at St. Francis Hospital, Evanston, Illinois, and served a year's residency at Detroit Eye, Ear, Nose and Throat Hospital from July, 1930, to July, 1931. He has been practising ophthalmology and otolaryngology in Petoskey since July 1, 1931.

kocytes 1, eosinophilic myelocytes 1, large mononuclears 1, transitionals 2. Hemoglobin was 20 per cent. The patient improved under medical treatment and was discharged on February 15, 1933.

On the evening of February 21, the patient was returned to the hospital, having had a severe hemorrhage from the nose and mouth the night before. The pulse, on admittance, was 138; the temperature 99 degrees; the red blood count was 2,700,000; and the white blood count was 10,000. Hemoglobin was 22 per cent. On February 22 the patient began to shown signs of respiratory embarrassment and examination revealed a mass in the left oropharynx, seemingly retro-pharyngeal in location. A clot was protruding from the mass with some seepage of blood. Although the condition of the patient was poor, operation was deemed advisable and under a light chloroform anesthesia, the clot was removed through the opening in the mucous membrane. Profuse bleeding was at once encountered and about 300 c.c. of blood was lost before this could be stopped. The normal air passage was restored by removal of the clot, but the patient died within twenty minutes after leaving the table.

The sequence of this case was probably as follows: Retro-pharyngeal abscess with spontaneous perforation and hemorrhage, followed by hematoma formation and hemorrhage.

THE TREATMENT OF ARTHRITIS BY ARTIFICIAL FEVER: PRELIMINARY REPORT OF TWENTY CASES*

J. M. BERRIS, M.D.†
DETROIT, MICH.

During the course of treatment of a paretic by means of physically induced hyperthermia, it was noted that a coexisting, chronic polyarthritis was markedly benefited. A similar effect was observed in a case of intractable asthma with an ankylosing spondylitis. These results prompted the author to select and treat similarly the series of cases here reported. These cases were selected on the basis of chronicity and resistance to other forms of therapy. Markson and Osborne[2] in 1931 reported six cases of chronic infectious arthritis successfully treated with sustained artificial fever produced by diathermy. The author's method differs in that fever is produced by placing the patient in a closed, humid, electrically-heated atmosphere.

The fever-producing apparatus consists of

(1) A large wooden, air-insulated cabinet so arranged that the patient reclines on a rubber couch, with his head in the open air.
(2) Electric heating element and water vaporizer underneath the couch.
(3) Control mechanism. Body temperature is measured by a rectal thermostat and controlled by an automatic electric recording device.

TECHNIC OF TREATMENT

The meal preceding the treatment is replaced by a liberal allowance of fluids. During treatment tepid water is allowed. Otherwise the usual dietary régime is followed.

The patient is placed in the cabinet, with thermostat in position, the cabinet is closed and the mechanism put in operation. Pulse readings are made every five minutes. Blood pressure records may be made by leaving one arm of the patient outside of the cabinet. Body temperatures of 102° to 103° F. are usually attained in from forty to sixty minutes and 103° to 105° F. in sixty to ninety minutes. These levels are attained with a cabinet temperature which usually does not exceed 130° degrees. Restlessness and apprehension are allayed by distracting the attention of the patient, application of cool cloths to the head, and by massage of the head and neck. When the predetermined level of hyperthermia has been reached the main switch of the apparatus is opened, the patient is covered with a bath blanket, quickly dried and transferred to a cot in the treatment room, or sent to the ward. Heat loss is minimized by wrapping the patient in four to six heavy woolen blankets, leaving only the head exposed. The temperature level may be well sustained for from four to eight hours by the use of hot water bottles placed around the patient.

When the mouth temperature has dropped to 99° F., body massage and manipulation of affected joints and muscles are given, the patient is either showered or given an alcohol rub and discharged. The entire period of treatment usually consumes from four to six hours.

No arbitrary number of treatments, nor interval between treatments, is used. In the beginning of the series, when it was thought

*From the Department of Medicine, The Grace Hospital, Detroit.

†Dr. Berris is a graduate of Detroit College of Medicine and Surgery, 1917, his special interest being internal medicine. He is clinic physician at Grace Hospital and is doing special experimental clinical work in arthritis, neurosyphilis and peripheral vascular diseases.

Patient	Age	Type and Duration	Involvement	Previous Treatment	Hyperthermia	Results
Miss R. A.	19	Chronic infectious 3 years.	Polyarthritis. Contractures of legs and arms. Bed-ridden 3 years.	Removal of infected teeth and tonsils. Physiotherapy, massage, Spa treatments.	15 treatments between July 1-30. 102° sustained 4 hours.	Marked improvement. Articular effusions cleared. Relaxation of contractures. Able to walk. Reports progressive improvement.
Dr. J. B.	40	Chronic Infectious 10 years.	Spondylitis. Slight involvement in knees and hands.	Eradication of all focal infections. Contrast baths.	2 treatments weekly. 101.5° F. sustained 2 hrs. 10 treatments Aug. 15 to Sept. 20.	Complete relief.
Mr. H. D.	31	Chronic Infectious 11 years.	Polyarticular joint effusions, ankylosing spondylitis. Frequent attacks of fever.	Removal of teeth. Vaccines, massage, contrast baths.	2 treatments weekly. Has had 6 treatments. Still under treatment. 102° sustained 3 hrs.	Marked improvement. Began after 3rd treatment. Swellings are subsiding.
Mrs. E. B.	37	Chronic Infectious 3 years.	Fibrous ankylosis in many joints. Partial fixation of right knee.	Removal of teeth and tonsils. Dry heat treatments.	7 treatments. 104° sustained 4 hrs. Oct. 1-17.	Improvement in muscular ability. Able to walk without aid of cane.
Miss E. S.	42	Chronic Infectious 8 years.	Destructive arthritis of right knee.	Heat treatments. Cast to knee. Vaccines. Diathermia.	10 treatments. 102°-103° sustained 4-6 hrs. Aug. 2-30.	Complete relief. Knee almost completely mobilized.
Mr. F. A.	42	Chronic Infectious.	Both shoulders.	Removal of teeth. Spa treatments.	5 treatments, 102° sustained 3 hrs. Sept. 10-25.	Improved. Able to work. Treatments discontinued on account of alcoholism.
Dr. M. M.	34	Acute G. C.	Both hips, ankles and knees.	Rest. Local heat. Intravenous vaccines. Local treatment of urethritis and prostatitis.	4 treatments, 103° sustained 4 hrs. Aug. 4-10.	No relief. G. C. infection extremely active.
Mr. M. W.	37	Probable G. C. 6 mo.	Polyarticular stiffness and periarticular swellings. G. C. 9 mo. ago.	Local G. C. treatment. Rest massage, heat treatments.	6 treatments, 102° sustained 3 hrs. July 6-24.	Complete relief.
Mr. I. Y.	44	Metabolic chronic gout 3 yrs.	Left great toe. Unable to walk for past 4 months.	Diet. Heat treatments. Immobilization of foot. Hot baths.	6 treatments. 103° sustained 2 hrs. Aug. 10-Sept. 1.	Complete relief. Able to walk without pain after 2nd treatment.
Mr. J. J.	41	Chronic Infectious 1 year.	Generalized polyarthritis. Stiffness, periarticular swelling. Evening temp. of 100 F.	Removal of all teeth and tonsils. Vaccines. Spa treatments. Contrast baths.	10 treatments. 102° sustained 2 hours. July 8-Aug. 1.	Some relief at conclusion of course. Unable to contact patient since.

Mrs. I. M.	76	Osteo-arthritis 23 yrs.	Hands, ankles and knees mainly involved. Severe pain almost constantly.	Spa treatments, 3 weekly each year without relief.	8 treatments. 101° sustained 2 hrs. Oct. 5-Nov. 2.	Marked relief from nocturnal pain. Weather changes do not produce previous disability.
Mrs. G. B.	56	Osteo-arthritis, 5 yrs.	Both knees. Joint mice.	None.	7 treatments. 102° sustained 3 hrs. July 20-Aug. 14.	No improvement during course of treatment. Patient since reports relief.
Mr. R. G.	24	Chronic Infectious 5 years.	Spine and hips. Ankylosing spondylitis, growing progressively worse.	Eradication of all focal infections found. Exercises. Spa treatments.	6 treatments, 102° sustained 3 hrs. July 15-Aug. 5.	Reports marked improvement in mobility and pain. Unable to continue treatment on account of work.
Mrs. J. G.	62	Osteo-arthritis 3 yrs.	Monarticular arthritis right shoulder.	Removal of teeth. Manipulation. Diathermy. Local heat.	8 treatments, 102° sustained 3 hrs. July 5-Aug. 6.	No improvement.
Mrs. B. B.	49	Osteo-arthritis 5 yrs.	Generalized mainly in both knees.	Thyroid medication. Hysterectomy.	12 treatments, 102° sustained for various periods. Aug. 5-Sept. 15.	Some improvement. Weather changes do not produce such marked disturbance.
Mrs. R. R.	46	Chronic Infections 1 yr.	Right sub-deltoid bursitis and left knee.	Orthopedic immobilization of shoulder. Manipulation.	10 treatments, 102°-104° sustained for varying times. July 20-Sept. 1.	No improvement.
Mrs. M. M.	38	Chronic Infectious 5 years.	Ankylosing spondylitis.	Typhoid vaccine. Manipulation. Belt. Colonic irrigation. Diet.	15 treatments, 102° sustained 3 hrs. July 10-Aug. 10. Sept. 5-Sept. 20.	Marked improvement. Can now do own housework.
Mr. G. R.	34	Traumatic 3 mo.	Lumbo-sacral. Bed-ridden 6 weeks. Followed direct trauma.	Strapping of back. Baths. Osteopathic treatment.	5 treatments, 104° sustained 4 hrs. July 1-July 10.	Complete relief.
Mr. P. M.	31	Traumatic 2 yrs.	Sacro-iliac, following strain. Constant pain.	Belt. Removal of infected teeth and and tonsils.	5 treatments, 103° sustained 2 hrs. Oct. 10-Nov. 3.	Complete relief.
Mrs. R. R. G.	43	Chronic Infectious 2 yrs.	Shoulders, knees, and hands. No clinical evidence of arthritic changes.	Injections. Removal of all teeth and tonsils. Typhoid vaccine intravenously.	4 treatments, 102° sustained 4 hrs. Aug. 20-Sept. 10.	Patient extremely unco-operative. Pronounced element of neurosis.

necessary to produce high temperatures, two treatments weekly were given. At present, using temperature levels of about 102° F., three treatments weekly for three weeks constitute a course. As many as twenty treatments over a period of five weeks have recently been given. No other therapy is administered during the period of these treatments.

PHYSIOLOGIC EFFECTS

1. Diaphoresis is profuse. Starts about 10 minutes after the beginning of treatment and continues until the blankets are removed.
2. The pulse rate increases roughly in proportion to the usual increase in infectious fevers, although in prolonged treatments, even at comparatively low levels of hyperthermia, pulse rates of 140 to 150 per minute occasionally have been noted.
3. An initial rise in systolic blood pressure is followed, as the temperature rises, by a fall in systolic and later a fall in diastolic pressure. The diastolic pressure falls, as a rule, 10 to 20 mm. during the treatment. Throbbing temporal headache occasionally occurs coincident with the fall in diastolic pressure.
4. Nausea occasionally occurs toward the end of the treatment; vomiting has never been noted.
5. In the beginning of treatment, affected joints are more painful. Toward the end of treatment relief is usually experienced. Relaxation of spastic muscle groups usually occurs soon after the onset of diaphoresis.
6. A uniform general erythema occurs as soon as hyperthermia begins and lasts throughout the period of treatment.

LABORATORY FINDINGS

The urine shows simple concentration only. The red blood cells are temporarily increased. Mild leucocytosis, however, usually persists even after the conclusion of a course of treatment. The metabolic rate is markedly increased for as long as eight to ten hours after treatment. There is a slight decrease in CO_2 combining power of the blood. Complete studies are not available, owing to lack of facilities. This work, at present, is being carried out and will be reported later.

In the majority of cases improvement in joint symptoms is noted after the first treatment, in spite of slight lassitude and some subjective sensations of weakness. No difficulty in having the patients return for treatment is experienced as has been found to be the case with the use of diathermy, as the discomfort of treatment is markedly less than when using diathermy. Joint effusions disappear promptly. Periarticular swellings are reduced in size after the first two or three treatments, as a rule. Contractures respond readily to manipulative procedures. Bony ankylosis is, of course not affected. Improvement is progressive throughout the course of treatment.

It is the belief of the author that the beneficial results obtained are explained very simply by the increased local circulation due to vascular dilatation in articular, periarticular and muscular structures. Increased metabolism in these organs also aids in this process, as explained by H. C. Bazett.[1] Many experienced observers, notably Pemberton,[3] have long felt that one important factor shown by nearly all arthritics is that of poor peripheral circulation. For this reason it has been considered unnecessary to reproduce the high fever curves that have been heretofore recommended, as the circulatory effects are just as pronounced at lower levels. That the circulatory effects persist even after the discontinuance of treatments is borne out by the statement of patients that they are free from the arthritic's usual complaint of cold extremities.

CASE REPORTS

Condensed case reports on the first twenty patients treated appear in the accompanying table.

CONCLUSIONS

1. A new method of production and control of hyperthermia is described.
2. The method is without danger and is less uncomfortable than methods heretofore described.
3. Long, sustained elevations of temperature are unnecessary to produce beneficial clinical effects in arthritis.
4. The improvement obtained seems to depend on peripheral vascular dilatation and improvement in local circulation.
5. Of a series of twenty cases of various types of arthritis, resistant to other methods of treatment, 75 per cent have shown definite improvement.
6. While the series is too short to admit of critical analysis, the method merits further study and investigation and seems to offer an advance in the treatment of arthritis.

10 PETERBORO ST.

REFERENCES

1. Bazett, H. C.: Circulation in pyrexia. J. A. M. A., 97: 18-1271 (Oct. 31), 1931.
2. Markson, D. E., and Osborne, S. L.: Illinois Med. J., 60:397 (Nov.), 1931.
3. Pemberton, Ralph: Arthritis and rheumatoid conditions; Their nature and treatment. Lea & Febiger, 1929, page 223.

DIABETES IN TWINS*

CASE REPORT

FRANKLIN B. PECK, M.D.†
DETROIT, MICHIGAN

The notable incidence of diabetes in certain families and races has in the past focused attention upon the probable hereditary nature of the affection. The study of human heredity is not a simple problem, but in recent years some progress has been made, and statistics are being accumulated which are accurate and will be helpful in the future. The occurrence of diabetes in similar twins is therefore significant, as it must be regarded as presumptive evidence of hereditary transmission.

CASE REPORTS

Case 1.—C. S., aged thirty, twin (Hosp. No. 81720).

The patient, a white male, was seen in coma on March 6, 1932; he was given 40 units of insulin, and immediately transferred to the hospital.

The history was that there were no other members of the family on either side who had ever had diabetes as far as was known. The father and mother are both living and well. Diabetes was first discovered in this individual at twenty-one years of age. Dietary control had been very sporadic, although he had continued to take insulin during this time. Within the past year the insulin had been arbitrarily reduced from 20 units daily to 7 units. Nutrition and general health had been satisfactory to the patient. There was no history of chronic cough, hemoptysis, pleurisy or night sweats.

One week prior to admission he had "caught cold." Coma came on two days before admission. On the first examination the chest was negative, no pathology being found except the deep coma. The blood sugar on admission was 312 mgs. The CO_2 twelve hours later was 34; N.P.N. was 29 mgs. Blood Wassermann was negative. The urine was loaded with sugar and diacetic acid. During the first twelve hours, 110 units of insulin were given, and the blood sugar was reduced to 31 mgs., when he was given 25 grams of glucose intravenously; this was repeated in six hours, and the patient was then well out of his coma.

Course.—For a few days he did well; diet was instituted, and the diabetes was under good control with 40 units of insulin daily. On March 9 he developed a cough, and a few râles were noted in the chest. The temperature arose to 102. Cough and fever persisted and within a few days decubitus ulcers began to form on the shoulders and buttocks. Later these were incised, and free pus found. The temperature followed a septic course, ranging from 99 to 104. Weight loss continued in spite of adequate diabetic control. On March 15, x-ray of the chest revealed extensive infiltrative processes in the median and central portions of the left lung, the corresponding areas of the right lung, and a limited area in the basal peripheral portion of the upper lobe. The diagnosis was an infected bronchiectasis, and hypostatic pneumonic process. The presence of tuberculosis was regarded as doubtful. Roentgenograms repeated on March 22 and April 4 showed extension of the process, with the added suggestion of small embolic abscesses. Repeated search for the tubercle bacillus in the sputum was negative. The patient became gradually weaker, the blood sugar and urine remained normal during the last week, although the insulin requirement arose to 75 units daily, and he died on April 6.

Autopsy.—Gross findings: Extensive fulminating pulmonary tuberculosis with early cavitation, involving mainly the lower and middle lobes of the right lung and the lower lobe of the left lung. Moderate adhesions on both sides. Kidneys enlarged to one and one-half times normal size, with numerous cortical abscesses. No gross pathology of the pancreas.

Microscopic diagnosis: Bilateral pulmonary tuberculosis. Multiple cortical kidney abscesses. Chronic interstitial pancreatitis, with marked decrease in islet tissue.

Case 2.—R. S., aged thirty, homologous twin.

This twin complained of no symptoms. He admitted on questioning, however, that he had lost ten pounds in weight in the past two months, and had been drinking more water than formerly. His past history was irrelevant, except for the occurrence of diphtheria in childhood. His usual weight (his highest) was 160 pounds.

Examination disclosed a similar twin, 5 feet, 6 inches tall, weighing 150 pounds. Both twins had prematurely grey brown hair. The physical examination was quite normal except for a flushed face. The urine contained 4 plus sugar, no diacetic acid. The blood sugar was 385 mgs. per 100 c.c. of blood.

With careful dietary control and 25 units of insulin daily this twin rapidly became sugar-free, and finally was able to eat a diet of carbohydrate 264, protein 87, fat 59, total calories 1,935, with no insulin, urine sugar-free, and blood sugars ranging from 97 to 127 mgs. Following some carelessness last November his blood sugar arose to 313, and he again had to resort to insulin therapy.

In 1929 Curtis (1) reported 13 cases of diabetes in twins, 4 from Joslin's series, and 9 others collected from the literature. Five more cases have been recorded by White (2).

Pincus (quoted by White) (3) has studied Joslin's group of 513 diabetic children showing heredity, and concludes that diabetes is transmitted as a Mendelian recessive. Cammidge (4) was able to show the same thing experimentally in regard to hyperglycemia in mice. Wright (5) and many others have reported cases leading to a simi-

*Read at Grace Hospital Staff Meeting, February 10, 1933.

†Dr. Peck is Associate Physician, Diabetic Service, Grace Hospital. He received his A.B. degree at Indiana University, 1920; was Assistant in Physiology, Indiana University, 1919-1920; received M.D. degree at Jefferson Medical College of Philadelphia, 1923, and was Resident Physician at Jefferson Medical College Hospital, 1923-1925. Dr. Peck has been associated with the Diabetic Clinic at Grace Hospital since 1928.

lar conclusion. A Mendelian recessive explains the cases which occur in families having no known history of diabetes. It will be interesting to watch what happens in the future when some of the present group of diabetic children intermarry, as theoretically the union of two diabetics should produce 100% diabetic children.

SUMMARY

Another instance of diabetes in homologous twins is presented, which brings the total number of cases in the literature to nineteen.

1636 David Whitney Bldg.

BIBLIOGRAPHY

1. Cammidge, P. J.: Brit. Med Jour. 2:738, 1928.
2. Curtis, S. W.: J. A. M. A., 92:952, 1929.
3. White, P.: Diabetes in childhood and adolescence. Phila., 1932, p. 40.
4. White, P.: Diabetes in childhood and adolescence. Phila., 1932, p. 35.
5. Wright, I. S.: Amer. Jour. Med. Sc., 182:495, 1931.

NOTES ON THE MANAGEMENT OF THE ADVANCED CANCER PATIENT DURING THE FIRST YEAR'S OPERATION OF MERCY HALL

HARRY C. SALTZSTEIN, M.D.
DETROIT, MICHIGAN

Mercy Hall, established October 26, 1931, was originally intended as a home for incurable cancer patients. The scope of the work has gradually increased.

Through the generosity of Miss Dorothy Brown, the old Hosmer home at 103 Eliot Street, Detroit, was obtained. Since moving here, accommodations for sixteen, then nineteen, bed patients have been maintained. Cancer cases are now accepted for treatment in all stages of the disease. Operations for malignancy are done elsewhere, the patients being transferred to Mercy Hall for convalescent care. Deep therapy is also given elsewhere, ambulantly. Radium applications are either given at Mercy Hall or in other hospitals, and patients transferred to Mercy Hall for convalescence.† An out-patient department for the diagnosis of cancer and allied diseases was opened October 1, 1932. A carefully controlled long-time follow-up clinic of treated cases, already well established at another hospital, has been transferred here. Later operating room facilities will be added.

From October 26, 1931, to October 22, 1932, seventy-three patients have been cared for.

Of the seventy-three cases, twenty came from their home or through a friend, thirteen were referred by attending physicians, forty, or somewhat over 50 per cent, were sent from other hospitals or social agencies.

About 15 per cent stayed one week or less, 45 per cent stayed one to four weeks, 30 per cent stayed one to three months, and 10 per cent more than three months.

Primary cases: So far five breast patients and three cervix patients have applied for treatment in stages where operation or radiation was indicated.

TABLE I

	Cervix	Breast	Rectum	Abdominal	Head Mouth	Misc.	Total	Per cent
Terminal	16	10	8	6	9	6	55	75%
Convalescent	1	2	1	1	5		10	14%
Primary	3	5					8	11%
	20	17	9	7	14	6	73	100%

Table I indicates these cases, separated into three groups:

1. Primary—those who applied to Mercy Hall in an early stage when operation or radiation was indicated with a fair chance of cure—11 per cent.

2. Convalescent from operations or other treatment elsewhere—14 per cent.

3. Terminal—those who entered in the far advanced or final stage of the disease and either died in Mercy Hall or elsewhere shortly afterward—75 per cent.

The convalescent group includes all body regions. The facilities were especially valuable for mouth, lip, and neck cases, some of which required prolonged convalescence or

†Harper and Woman's Hospitals have aided generously in x-ray and radium therapy.

convalescence between two or more operations or other procedures. There is frequently considerable saving in hospital expense if convalescence can be obtained where elaborate hospital facilities are not needed.

The largest group consisted of those patients who applied in the terminal stages of the disease—generally when the family was no longer able to care for them.

TREATMENT OF FAR ADVANCED MALIGNANCY

There is a growing interest generally in the treatment of far advanced malignant diseases. Concerning the medicinal therapy, considerable individualization can be practiced in the use of the few drugs necessary to insure a comfortable final period for these unfortunate individuals. Our practice has been to start with acetyl salicylate (grains five to ten and occasionally more) then combine this with phenacetine (grains three to five) or pyramidon (grains one to five). Usually after the patient's idiosyncrasies are known, two, four, or six doses of these combinations during the twenty-four hours suffice. Later codeine, starting with the half grain doses, is added. We have rarely had to increase the dose of codeine above one grain three or four times daily when combined as above.

This initial routine is very similar to that described in an illuminating article on the "Treatment of Patients with Inoperable Cancer" by Wild[2] of London, which has just come to our notice. Wild adds acetanilid, watching for cyanosis or increase in anemia, and speaks very highly of alcohol in small doses (two ounces of absolute alcohol in twenty-four hours) "as an adjunct to other anodynes, where it seems to have synergical action and increase their effect." If patients are kept warm, quiet, have plenty of fresh air, some exercise, irritating discharges cared for, the drugs need not be increased rapidly. To quote Wild again: "It is often worthwhile to be content to relieve pain, make it bearable without seeking to abolish it altogether; to do the latter needs very much larger doses of the drugs, and they soon lose their effect and have to be changed."

We have found a capsule called Gardinol (pyramidon grains four and luminal grains one and one-half) very useful. In general, however, sedatives as the bromides, amytals, etc., are not good drugs for these cases, because they produce sleep only, and no relief from pain.

A review of thirty terminal cases treated in Mercy Hall for periods ranging from one week to five to six months shows that our chief reliance has been upon codeine and aspirin in combination. Six cases required only aspirin, acetyl salicylate, phenacetine, Gardinol, etc. Twenty-one were kept comfortable, sometimes for extended periods, on codeine and aspirin, rarely more than one-half grain of codeine plus five to ten grains of aspirin every three to six hours. Seven required not more than two to four doses of morphine before death. Three cases required it one to three times a day for several days. Our gauge for the necessity of morphine has been about what Wild laid down: "If the patient can get five to six hours fairly continuous sleep, can take his food during the day, he is not suffering intolerable pain, the drug need not be increased." Many of these patients go into a quiet relatively painless coma three to six to eight days before exodus, which requires little medication.

From our experience so far, morphine has not been used as frequently as one might think. During the month of September, 1932, with ten to fifteen patients regularly under our care, most of them in terminal stages, our drug sheet shows that just eight one-quarter grain morphine tablets were used. These patients all slept six to seven hours during the night, with one to two hours nap during the day.

Morphine is often lightly given to far advanced cancer patients. It is easy, simple, and effective; but frequently the cumulative effect sets in rapidly, and then one must care for an irritated, restless, uncomfortable individual who is generally nauseated and constipated and requires large and ever increasing doses for several weeks. During the year we have taken eight patients off morphine entirely who upon entrance had been getting one-fourth grain, sometimes one-half grain, every three hours. The method we found most suitable (worked out by Miss Hazel Henderson, chief nurse) consists in giving sodium amytal in sufficient doses to keep them "groggy" or somnolent for two to three days. One tablet (grains three) repeated in one hour. Then every six hours for the first day, every eight or twelve

hours thereafter, usually sufficed. The patient is gradually allowed to come out, and no more morphine allowed. Phenacetine, aspirin, etc., according to the above régime is then given.

Of course, many terminal cancer patients have intolerable pain. This series does not happen to include any. There is need for better analgesic drugs which can be given by mouth rather than by frequent hypodermics. Wild recommends watery extracts of opium, liquid extract of opii (British Pharmacopeia) as causing less digestive disturbances and better tolerated by the patient. Auchincloss (Nelson's Loose Leaf Surgery, Volume IV) recommends trivalate, a proprietary mixture of the valerates of morphine, codeine, and cocain.

Alvarez[1] has spoken very highly of a very recent addition to our armamentarium, a new morphine derivative called dilaudid, five times as powerful as morphine HCl (from which it is derived by a slight structural change), apparently non-habit forming and not constipating. We have tried it on about a dozen patients. There were no gastro-intestinal symptoms, and patients were more comfortable, coöperative and less depressed than they had been under morphin. We are not sure, however, regarding its being non-habit-forming.‡

Pantopon we have not found of very much value over morphine. Schlesinger's solution, a powerful combination of morphine, scopolamine, and hyoscine, very shortly makes for a delirious unmanageable derelict, and, though occasionally useful, is not necessary in very many cases.

Other palliative medication and procedures should always be kept in mind. As Adair has stated, there is often too much pessimism concerning therapeutic possibilities in these cases. We have had more satisfaction in the treatment of the anemia which so often accompanies these cases than perhaps anything else. Dr. A. E. Price, with the coöperation of Parke-Davis and Company, has been giving iron, and ventriculin with iron, controlled by careful blood counts. Though all far-advanced cancer patients do not show anemia (some show blood concentration) all we have checked show a moderate leukocytosis with a marked toxic shift to the left. Iron and ammonium citrate, drams one of the 50 per cent solution three or four times a day, makes a profound change in the individual in about a week. The appetite improves; with better nutrition, much of the discomfort and general aches and pains disappear, and the patient's outlook is happier. Ventriculin with iron (Parke-Davis) grams ten twice a day is an advance; improvement seems more rapid. The disadvantage is the expense.

The best deodorant we have found for foul wounds, vaginal douches, etc., is a preparation called solupin, a pine oil preparation prepared by Wm. S. Merrell Co., Cincinnati, for general household use. Diluted 1-10 as a moist dressing changed twice daily, or as a daily douche (drams 1 to 1 pint) it seems to keep down the spread of infection in these cases, especially that due to saprophytic organisms which overwhelm some of these wounds.

Aspiration of chest and abdominal accumulations bring considerable relief. Sometimes after the first or second paracentesis re-accumulation is slower.

Nerve relief of pain is probably not made use of generally to its full therapeutic value. One alcohol injection of the fifth nerve kept an old man eighty-six years of age comfortable until he quietly passed away four weeks later.

Cordotomy, *i.e.*, dorsal division of the antero-lateral spinal cord tracts for intractable pelvic pain, has brought instant relief and made a comfortable patient out of a morphine addict under our observation. One should weigh carefully, however, the possible further duration of disease, and the possibilities of a comfortable existence under rest and the above outlined régime before subjecting a debilitated person to this delicate operation.

Intravenous lead therapy is still recommended as possibly curative in certain cases of otherwise hopeless malignancy (Alvarez).

Deep x-ray therapy and an orthopedic brace sometimes relieves the pain of spinal metastases entirely. Total recalcification of bone has taken place.

‡The clinical experience with this drug, and the experimental basis for its action have recently been rather extensively reviewed for the Council on Pharmacy and Chemistry of the A. M. A. by N. B. Eddy (J. A. M. A., 100:1032 (Apr. 1) 1933). There is general clinical experience that it produces less nausea, vomiting and constipation than does morphin. The report doubts that it is free from tolerance and addiction-producing properties

REFERENCES

1. Alvarez, W. C.: Proc. Staff Meet. Mayo Clin. (Aug. 17), 1932, 7:480.
2. Wild: Lancet, 1928, 215 (No. 2):1062.

TREATMENT OF CHRONIC ENDOCERVICITIS*

F. G. H. MALONEY, M.B. (Tor.), F.A.C.S.†
IRONWOOD, MICH.

Leukorrhea is one of the most common symptoms of pelvic disease for which women seek relief. Many women consider vaginal discharge as physiological and take it as a matter of course, but a certain percentage, whose sense of cleanliness is more highly developed, seek medical advice. If a routine speculum examination of the cervix were performed on all married female patients, the percentage of endocervicitis found would be very high. In approximately 6,000 women successively examined, Fulkerson found a little more than a third had cervical infection, and that the condition existed in 78 per cent of all cases between the ages of twenty and forty. In my experience, the most common cause of chronic infection of the cervix has been trauma during childbirth and, to a less extent, gonorrheal infection. There is also a certain small percentage of cases whose origin is non-specific, particularly in young married women who have never been pregnant and in whom no history of gonorrheal infection is obtainable nor in whom can it be demonstrated.

The most striking, but probably the least important symptom of chronic endocervicitis is leukorrhea. More disabling symptoms are low pelvic pain and backache often due to ascending infection into the uterus and pelvic ligaments, kept active by lymphatic drainage from chronic infected cervical glands. An infected cervix may act as a distant focus of infection, similar to an abscessed tooth, diseased tonsils, or infected prostate. Dr. C. H. Mayo has drawn attention to this fact in iritis and similar infections of the eye. It has been definitely demonstrated that carcinoma of the cervix is occasionally a sequela of chronic cervical erosion. The above facts are unquestionable indications for the treatment of this condition, when found, and it can only be found by routine speculum examination of the cervix.

The anatomy of the cervix is very kind toward harboring chronic infection. The mucous membrane lining the cervical canal is arranged in numerous ridges or folds and is richly provided with many deep glands. In gonorrhea, the infection spreads through these glands and folds and, when the original gonococci die out, almost invariably a secondary infection follows which remains chronic.

In the so-called erosion following childbirth trauma, the columnar epithelium of the canal is stimulated to grow downward, covering the abraded area about the external os with adenomatous tissue. These glands secrete freely and are non-resistant to infection, so, by coitus or other means, they become infected sooner or later, producing an edematous, boggy cervix. As time goes on, the slow-growing squamous epithelium of the cervix gradually spreads over this eroded area in nature's attempt to heal. These infected glands are sealed over, but they continue to secrete mucus, and form so-called Nabothian cysts.

By studying the anatomic structure of the cervix and the pathology of chronic cervicitis, it can be readily seen that the most hope of cure lies in an agent which will destroy these infected glands and allow them to be replaced by healthy tissue.

The purpose of this paper is to describe such a form of treatment, namely, cauterization of the cervix, which can be used routinely in the office and which gives uniformly excellent results in practically all cases. The scope of this office cauterization has been enlarged to take in practically all cases of endocervicitis, no matter how extensive, so that, in my practice, it has practically eliminated hospitalization for this condition, except in those cases which require other coincident surgery. Obvious advantages of office treatment are that the cost of hospitalization is saved, fear of the hospital and a general anesthetic is removed, and many women undergo treatment who would not go to a hospital.

The instrument used is a small nasal cautery with hair-pin tip. Differently shaped tips may be used, but this type is most generally satisfactory. The current is stepped down by a Wappler transformer, which per-

*Read before the Upper Peninsula Medical Society at the annual meeting, Sault Ste. Marie, Michigan, August 11, 1932.

†Dr. Maloney is a graduate of the University of Toronto 1924; he held a Surgical Fellowship at the Mayo Clinic 1925-28; his practice is limited to diagnosis and surgery.

forms very satisfactorily. A very convenient type of table to use is a cystoscopic table with a drainage pan and pail, but this is not absolutely necessary.

No anesthetic is required. The majority of patients suffer little or no discomfort at all, but a few complain of cramp-like pains similar to a menstrual pain in the lower mid-abdomen. This pain is not unbearable and, if the cauterization is stopped momentarily, it rapidly disappears. The cervix itself is insensitive and no local pain is complained of if the cautery needle is confined to the cervix and does not touch the vaginal wall. Occasionally, when much mucus from cysts is encountered, considerable steam is produced and the patients do have a slight hot, burning sensation in the vaginal vault, but it is not unbearable.

The patient is placed in the dorsal recumbent position, with heels in stirrups, knees flexed, and thighs abducted. The foot-leaf of the table is dropped and the operator seats himself before the table similar to position for curettement. Light may be supplied by a goose-neck lamp or head-light. The cervix is exposed by a Graves speculum and the vagina is washed out with about a quart of lysol solution, using an asepto type syringe. The speculum is rotated, so that the solution comes in contact with all parts of the vagina. After sponging the cervix and vaginal walls dry, mercurochrome is freely applied. The usual technic is to make a linear cauterization in normal tissue outside the margin of the inflamed area and then thoroughly cauterize the entire outlined area en masse, going well up into the canal, but not quite to the internal os. The depth necessary to insert the cautery tip varies from ¼ to ½ inch or more, depending upon whether there are cysts or not, but the entire infected gland bearing area is thoroughly cauterized regardless of how deeply it is necessary to go and the entire procedure is done at one sitting. Mercurochrome is then re-applied and a cotton tampon, dipped in a solution of icthyol and glycerine, is inserted into the vagina well up against the cervix. A string, tied around the tampon, is fastened to the skin or the thigh with adhesive, and the patient is instructed to remove it in two days. This tampon is inserted for its soothing effects upon the walls of the vagina which have been subjected to hot steam from the cautery. The patient is instructed to return in three days and, thereafter, twice a week until complete healing has taken place. This averages about six weeks, but may occur in five or extend as long as eight weeks, depending upon the depth of cauterization.

About the third or fourth day, the cauterized area has become covered with a thick slough which has begun to soften and curl at the edges. This process of softening, or liquefaction and separation of the slough, proceeds for about two weeks, during which time there is a rather profuse vaginal discharge. At each visit, the vagina is gently syringed out with lysol solution, care being taken not to disturb the slough still attached for fear of causing bleeding. Mercurochrome is applied to the whole vagina and the patient is carefully warned not to take douches.

After the slough has disappeared, a healthy looking red granular surface is left which becomes covered with a greyish white film, as the epithelium grows out from the margin. The granular area becomes smaller and smaller, until it is entirely covered by normal epithelium, the canal being the last to heal. If the granulations become exuberant or seem to require stimulation, they are touched up with a 10 per cent silver nitrate solution, instead of applying mercurochrome. Occasionally, a few scattered pin-head areas of granulation may persist, but these readily disappear if re-touched with the cautery point.

As stated before, the entire cauterization is done at the first sitting and the cautery is not used again except as just mentioned, to stimulate tiny pin-head areas to heal over.

The possible complications in this method of treating chronic endocervicitis are pelvic infection, hemorrhage, and stenosis. Of infection, I have seen none. Hemorrhage requiring treatment is very rare, but if it does occur, it is easily controlled by re-cauterization of the bleeding point, packing the vagina tightly with gauze, and rest in bed for three or four days. However, it is quite common to have a very slight bleeding during the period between the fourth to fifteenth day when the slough is separating from the cervix, but which requires no treatment. This bleeding is due to large pieces of slough coming off without going through the process of softening and liquefaction, and the amount of bleeding depends upon the size of the blood vessels exposed in this granular surface. It is for this reason that the patient

is not allowed to douche herself. Stenosis of the cervical canal very rarely occurs and can be prevented by inserting a small cotton swab on an applicator-stick into the canal up to the internal os at each office visit after the slough has parted and granulations appear. This will break up any filmy adhesions and keep the canal open until the canal has been completely lined with epithelium.

There are a few contra-indications for the use of the cautery in treatment of the cervix. Acute vaginal or cervical inflammation should be treated with hot douches and allowed to subside before using the cautery. Also, acute endometritis, salpingitis, and pelvic cellulitis should be allowed to quiet down before cauterization is done. Pregnancy in the first three months is not a contra-indication in properly selected cases, but of course, in the face of acute inflammation or history of previous abortion, it should not be performed.

The end-result of this form of treatment is excellent. The cauterized area is covered over with a healthy pink mucous membrane and the previous erosion cannot be distinguished from the surrounding normal tissue. Abnormal secretion from the cervix has ceased and the leukorrhea cured, providing it was not also coming from some other source.

I do not believe the small office cautery produces nearly as much scar tissue as the heavy cautery which is used under a general anesthetic. The tip of the office cautery is smaller and its effect more readily controlled, and the cauterization is aimed to destroy the gland-bearing tissue only, not being plunged into the muscle tissue, thereby producing a large amount of scar.

SUMMARY

1. Chronic endocervicitis often acts as a source of infection for pelvic inflammation, inflammations of the eye, arthritis, and similar diseases.

2. Carcinoma of the cervix is occasionally a sequela of chronic erosion. Practically all cases can be treated by cauterization in the office without an anesthetic.

3. Contra-indications consist of acute pelvic or vaginal inflammations and pregnancy after the third month.

4. Complications are rare. Hemorrhage occurs occasionally, but is readily controlled.

5. The end-results are excellent, giving permanent cure with a minimum formation of scar tissue.

REFERENCES

1. Bailey, K. V.: An inquiry into the basic cause and nature of cervical cancer: II. The relation between cervicitis (erosion of the cervix) and cervical cancer. Surg., Gynec. and Obstet., 1:688-720 (April), 1930.
2. Benedict, Wm. L.: The relation of infection of the pelvic organs and diseases of the eye. Collected Papers of Mayo Clinic, 23:713-718, 1931.
3. Ground, Wm. E.: Endocervicitis and erosion: Their pathology and treatment. Physical Therapeutics, 49: 241-248 (June), 1931.
4. Mayo, C. H., and Dixon, Claude F.: The cervix as a focus in chronic disease. Collected Papers of Mayo Clinic, 19:536-540, 1927.

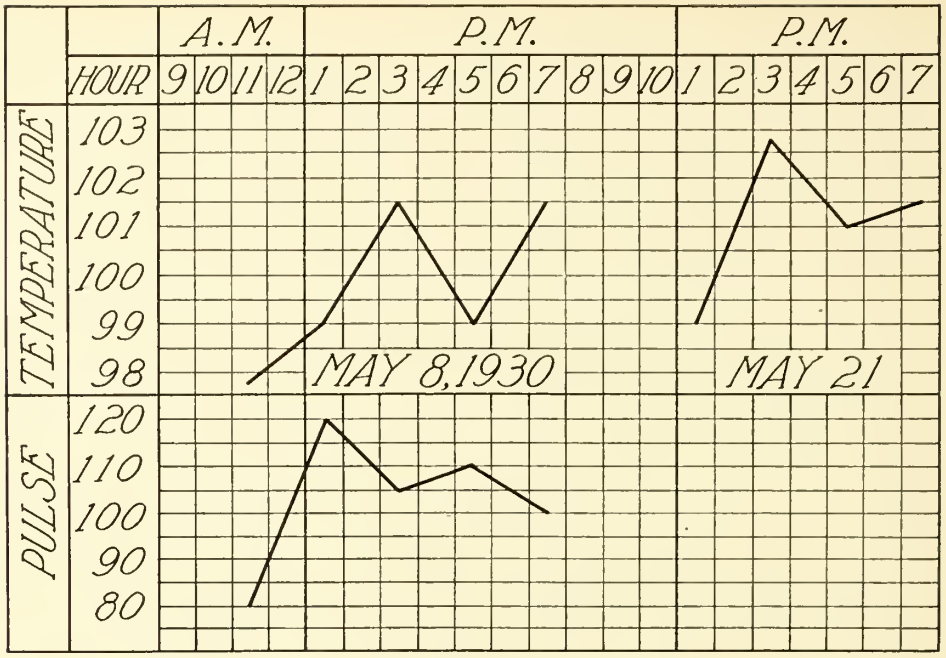
THE INTRAVENOUS USE OF TRIPLE TYPHOID VACCINE IN GONORRHEAL INFECTIONS

L. D. McMILLAN, M.D.†
CENTRAL LAKE, MICHIGAN

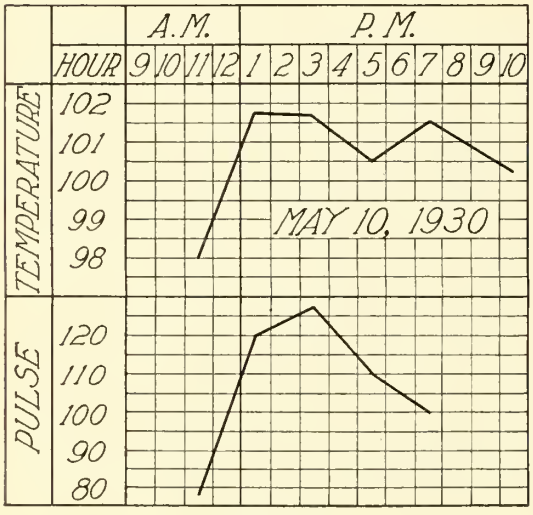
The following tables and observations were made at U. S. Marine Hospital, Buffalo, while I was in charge of the venereal wards in 1930. It was then customary to treat certain syphilitic conditions by malarial inoculations, but not always possible to secure the plasmodium, and as a substitute, intravenous injections of triple typhoid vaccine were used to create a hyperpyrexia. As I had, in private practice, occasionally used mercurochrome intravenously, with apparently favorable results in gonorrheal epididymitis, and believing the results due not so much to chemical as to thermal destruction of gonococci, I succeeded in testing this theory by treating a few cases of Neisser infection by injecting the triple typhoid vaccine intravenously, thereby inducing a marked hyperpyrexia.

The following clinical charts and notes are self-explanatory, and while not in every case complete, convinced me that the treatment was worthy of more extensive usage.

†Dr. McMillan is a graduate of the University of Michigan, M.S. 1911, M.D. 1916; Interne, Charity Hospital, Cleveland, 1916, 1917. He served as naval surgeon throughout the war, part of the time in France. During 1920 and 1921 he was pathologist to Elyria Memorial Hospital, Elyria, Ohio.



CASE A



CASE B

Case A.—Acute gonorrheal urethritis.

May 8—Developed acute epididymitis. Suspensory and ichthyol dressing. 11 A. M. intravenous injections 0.3 c.c. triple typhoid vaccine.
May 10—Swelling of epididymis much reduced.
May 10 to May 21—Little change.
May 21—1 P. M., 0.5 c.c. triple typhoid vaccine intravenously.
May 26—Epididymis nearly normal—no tenderness.

Case B.—April 23, 1930—Gonorrheal urethritis with epididymitis.

May 6—Prostate moderately swollen. Moderately large epididymis.
May 10—11 A. M. .3 c.c. triple typhoid vaccine intravenously.
May 12—Epididymitis subsiding. Prostate still slightly enlarged.

Case C.—May 13.—L. epididymis greatly swollen. 11:15 A. M. .3 c.c. triple typhoid vaccine intravenously.

May 14—Swelling of epididymis slightly subsided.
May 14 to 22—Little change.
May 22—0.5 c.c. triple typhoid vaccine intravenously. (Hour of administration not noted.)
May 24—Moderate swelling of epididymis persists, but patient states that this is no more than has been present for years. No tenderness. Urethral discharge has subsided.

Case D.—Multiple (gonorrheal) arthritis. Prostate moderately large.

May 24—At 12 noon 0.3 c.c. triple typhoid vaccine intravenously.
May 26—Feels much better. Pains in joints have subsided, but severe herpes labialis has developed.

Case E.—Acute gonorrheal epididymitis.

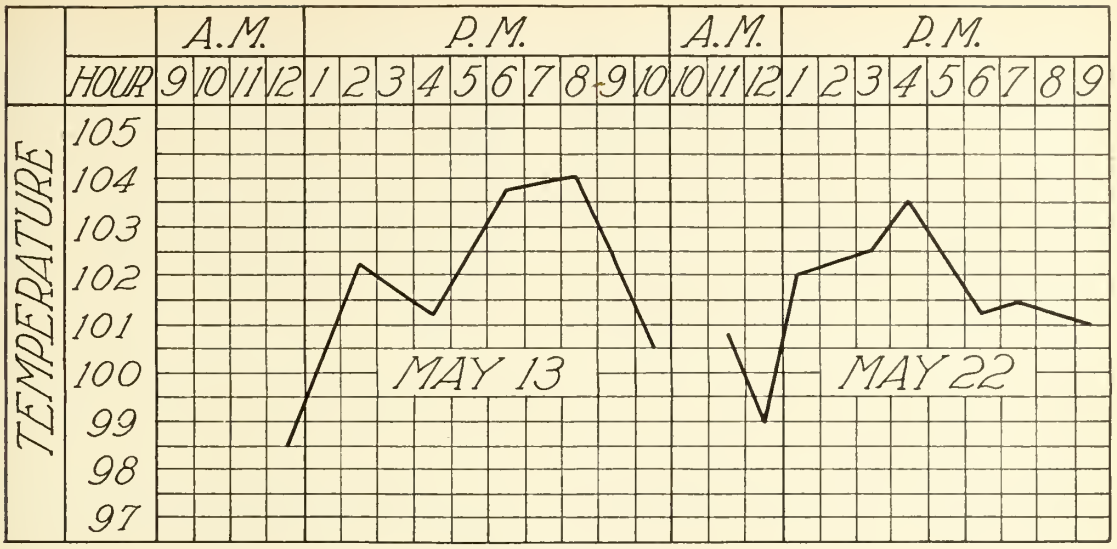
May 24—L. epididymis tender and slightly swollen. .3 c.c. triple typhoid vaccine intravenously at 1 P. M.
May 26—Epididymis normal size, not tender.

Case F.—Gonorrheal prostatism and urinary incontinence.

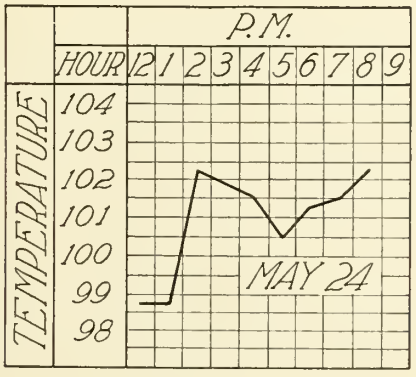
May 30—.3 c.c. triple typhoid vaccine intravenously.
May 31—Distinct decrease in prostatic swelling. Alleviation of incontinence.

Case G.—Gonorrheal epididymitis.

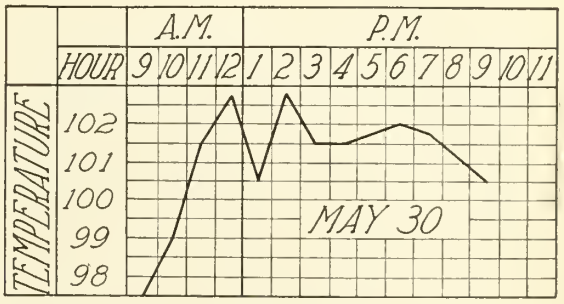
May 30—Admitted with epididymis very markedly swollen and tender. 1 P. M. .3 c.c. triple typhoid vaccine, injected intravenously.
May 31—Epididymis very noticeably diminished in size. Tenderness greatly decreased. Urethral smears positive for gonococci.



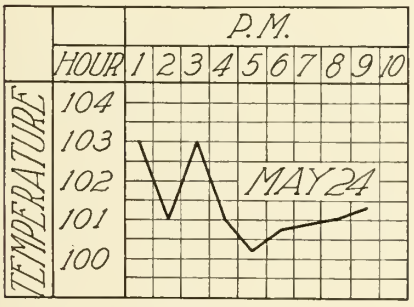
CASE C



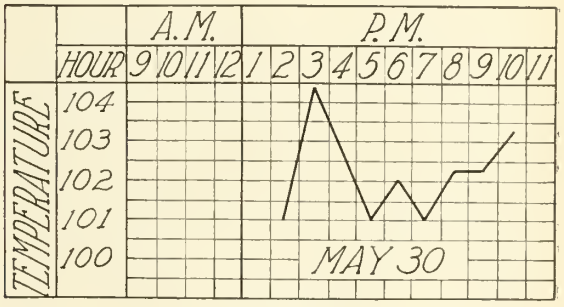
CASE D



CASE F



CASE E



CASE G

Analysis of these charts shows the following:

1. In every case a drop in temperature occurring at a period varying from two to four hours after the injection of the vaccine, and varying in amount from one to four degrees. This drop was, in every case, followed by a secondary rise of from one to four degrees. The profile curve is always dicrotic.

2. With an initial dosage of .3 c.c. the lowest fastigium is 101.5°, the highest 104.5°.

The use of this method produces great prostration and usually emesis. The effects of the second injection of .5 c.c. two or more days later is but a repetition of the clinical picture of the .3 c.c. injection, except that the second injection appears more effective than does the first to favorably influence the course of the infection. In no case in the series was albuminuria reported. In all cases the improvement noted was permanent.

Since treating this small group of hospital cases, I have been able to use the method on but four other cases, in private practice, viz.:

Case H.—June 26, 1931. Acute gonorrheal urethritis of four days' standing. At my office I injected .3 c.c. triple typhoid vaccine intravenously and permitted the patient to return to his home. He returned on the day following giving the usual reaction history, and with the urethral discharge nearly absent, although when seen on the previous day it had been copious.

On June 28, .5 c.c. was given. On the following day he again reported a violent reaction, but the discharge was totally gone, and had not recurred when seen ten days later. If it has since recurred I have no way of knowing, as he left the country about this time.

Case I.—September, 1931. Chronic gonorrhea of seven years' standing, with salpingitis and leukorrhea. Three intravenous injections of triple typhoid vaccine were given in doses of .3 c.c., .5 c.c., and .5 c.c. at four day intervals. Although the temperature curve was typical although not above 103°, it has been lost. Herpes labialis developed after the third treatment. There was a moderate decrease of tubal tenderness and almost complete cessation of leukorrhea, but vaginal smears remained positive for gonococci.

Case J.—May, 1932. Incipient gonorrheal urethritis, discharge just appearing, .3 c.c. of usual vaccine injected in attempt to abort, with argyrol also used. Disease developed in spite of this treatment. Patient refused further treatment by this method.

Case K.—September, 1932. Patient first seen with a profuse urethritis after a venereal exposure of three days before. After two treatments by usual method and dosage, discharge ceased and he has remained free until last seen in December.

It will be noted that 70 per cent of these cases, some of which were treated but once, responded in an apparently striking improvement. As some of these cases were observed for several days with usual treatments and improved markedly over night when the vaccine was used, I am led to conclude that the febrile reaction was probably the cause of the improvement. At any rate I believe it should be given a wider trial in gonorrheal conditions, particularly in prostatitis and epididymitis.

CENTRAL LAKE, MICHIGAN

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H.
LANSING, MICHIGAN

AUTOMOBILE ACCIDENT DEATHS

At least one downward trend in 1932—the drop in automobile accident fatality—is encouraging. In Michigan, according to the report of the Bureau of Records and Statistics of the Michigan Department of Health, the number of automobile accident deaths in the state fell from 1,395 in 1931 (collision with heavier vehicles not included) to 1,130 in 1932, a saving of 265 lives. In the country as a whole, 4,500 lives were saved, motor vehicle deaths decreasing from 33,500 in 1931 to 29,000 in 1932.

Nor can such a decided drop be attributed wholly to the depression and its lowering of automobile accident expectancy. It is estimated that in the United States 7.26 per cent less gasoline was consumed in 1932 than in 1931 and 6.7 per cent less automobiles were in operation, and that in Michigan automobile registration fell 7.8 per cent. The number of persons killed in automobile accidents, however, dropped approximately 13.5 per cent in the United States, and almost 19 per cent in Michigan, leaving sufficient margin for indications of definite progress in the control of the automobile hazard.

The decrease of 265 in the number of automobile deaths for 1932 in Michigan exceeded any previous decline ever recorded, and the rate of 10.0 deaths per 10,000 automobiles registered was the lowest since 1928. Ten Michigan counties had clear records of no automobile fatalities. For all counties, deaths from vehicle accidents totalled 1,222. Eighty-six were classified as

caused by railroad and automobile collisions, six by street car and automobile collisions and 1,130 by automobiles alone. Of the 73 counties in which fatal accidents occurred, 45 showed death rates above the mean rate of 9.9 for the state. The heaviest death tolls were listed in Wayne County with 392 deaths, Oakland with 67 and Genesee with 45 deaths.

An interesting phase of the 1932 automobile mortality, particularly to those concerned with accident prevention, is the age distribution. For years one of the most regrettable features of the motor vehicle situation was that children were most frequently the victims. But in 1932 the dangerous age in Michigan appears to have been that between 20 and 24 years. There were 112 deaths in this age group, more than in any other. The 45 to 49 year and the 25 to 29 year groups ranked next, the former with 103 deaths and the latter with 101 deaths. This concentration of fatality in the adult age groups is significant. Until recently, nearly one-fourth of those who were killed by automobiles in the United States were children. Now less than one-fifth of automobile deaths are those of children. In 1932 the automobile accident mortality rate of children declined almost 17 per cent as compared with the rate for 1931, the reduction being principally in the five to nine year group. Such a saving in child life is evidence of no little success in the campaign for accident prevention conducted through schools, police departments, clubs and other coöperating organizations interested in safety education.

SUGGESTED SANITARY PUBLIC WORKS PROGRAM

A suggested plan for the expenditure of Michigan's share of the two billion dollars that it is proposed the federal legislature appropriate for a national public works program has been mapped out by sanitary engineers of the Michigan Department of Health and the Stream Control Commission. Estimated on the basis of population, Michigan's allotment would approximate $80,000,000.

The program consists of water systems and improvements, sewers, and sewage and garbage disposal projects. The total cost would be about $40,000,000. Each county would receive a share, probably prorated on the basis of population and the needs of the municipalities in the county. The remainder of the $40,000,000 may be spent on highway construction, power development and similar projects.

The sanitary public works program is, of course, entirely tentative, depending first upon the appropriation of the funds and second upon the terms upon which they are made available.

COMMUNICABLE DISEASES IN MICHIGAN

There are no new trends in the communicable disease incidence departing from those mentioned in the last issue of the Journal.

The prevalence of typhoid fever continues low for the season. Smallpox is almost, if not entirely, non-existent in the state at present. Diphtheria is at the lowest ebb since Michigan was included in the registration area. Scarlet fever continues high, in fact, higher than for several years, but at the present writing it shows some tendency toward a decline. Measles continues high in Detroit and southeastern Michigan. German measles has been usually high elsewhere but on the whole appears to be at the peak and about to decline.

Two or three rather unusual clinical characteristics of German measles have been reported. Several physicians have noted recurrent attacks of the disease in some individuals at intervals of a few weeks. In a few cases as many as three attacks two or three weeks apart have been reported. The disease seems to have been contracted by a large number of adults. An extreme enlargement of the lymph nodes has been noted in some cases. In many instances the disease has closely resembled scarlet fever, a not unusual feature.

EATON COUNTY HEALTH DEPARTMENT

The office of the Eaton County Health Department was opened in the Court House, Charlotte, on March 7. The staff consists of W. J. Davis, M.D., Director, Eliza J. Smith, R.N., Nurse, Lyman B. Chamberlain, Sanitary Inspector, and Miss Stone, Clerk. Cooperating nurses are Flora Burghdorf, working in the Charlotte Schools, and Roberta Foote in the Eaton Rapids Schools. The unit is financed largely by the W. K. Kellogg Foundation. It will be operated on a plan similar to that of the Barry and Allegan County units, which are also financed

in larger part by the W. K. Kellogg Foundation.

MOUTH HYGIENE

A very interesting observation has recently come to the attention of the director of the Bureau of Mouth Hygiene.

Occasionally during recent years he participates near Lansing in the examination of preschool children in the annual Summer Round-Up sponsored by the Parent-Teacher Associations. These are the children in the four and five year group who will enter kindergarten in the fall. The purpose is to find defects and have them corrected before the child enters school.

This spring at three places where he had been on previous Round-Ups the conditions were markedly improved. Where formerly 60 to 80 per cent had had defective teeth, this year 60 per cent had sound teeth. The change was especially marked in one year in a large consolidated school just on the edge of Lansing. Last year 70 per cent of the children had decayed teeth and in 16 per cent decay had already progressed to the abscess stage. This year 60 per cent had sound teeth and in no child had decay progressed to the abscess stage.

This improvement was due to better nutrition and general health as only one child had ever had teeth filled. It must mean better prenatal and infant diet and care. These examples are not wide enough to form general conclusions, but here at least the health education of the expectant mother has been effective. But we must remember that the children were born in 1928 and 1929 during the peak of economic prosperity. Can health education continue to show results in the face of present conditions? Further observations will be watched with interest and some anxiety.

W. R. D.

CHILD HYGIENE

A very successful series of women's classes in Macomb County has been completed by Dr. Ida Alexander. During the last week of her six weeks in that county Dr. Alexander had an attendance of 643 women and the entire course was unusually well attended. Dr. Alexander is beginning a similar series of classes in Cass County at the request of groups of women in that county.

Dr. Edna Walck has completed her work with women's classes in Hillsdale County and will go from there to Manistee, where she will be located for six weeks.

Child care classes are being completed by staff nurses in the rural schools. Bertha Cooper, R.N., will complete her series in Branch County within a week or two; Deane Rinck, R.N., is finishing in Jackson County; Nell Lemmer, R.N., in Lapeer County; and Julia Clock, R.N., has already completed her classes in Clinton County. Margaret Bulkley, R.N., will complete her series of classes in Berrien County within a week. The summer work of these nurses will consist of infant welfare programs in counties needing this type of work.

Martha Giltner, R.N., is continuing her prenatal program in Midland County.

AMERICAN STUDENTS IN FOREIGN MEDICAL SCHOOLS

Because of the situation created by the matriculation of numerous American students in foreign medical colleges and the difficulties associated with the admission of such students to the examinations of American licensing boards, special consideration was given the subject by the Federation of State Medical Boards in its annual session in Chicago, February 14. At this time, according to the secretary, Dr. Walter L. Bierring, the following recommendations were adopted:

1. That no American student matriculating in a European medical school subsequent to the academic year 1932-1933 will be admitted to any state medical licensing examination who does not, before beginning such medical study, secure from a state board of medical examiners or other competent state authority a certificate, endorsed by the Association of American Medical Colleges or the Council on Medical Education and Hospitals of the American Medical Association, showing that he has met the premedical educational requirements prescribed by the aforementioned association.
2. That no student, either American or European, matriculating in a European medical school subsequent to the academic year 1932-1933 will be admitted to any state medical licensing examination who does not present satisfactory evidence of premedical education equivalent to the requirements of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association, and graduation from a European medical school after a medical course of at least four academic years, and submit evidence of having satisfactorily passed the examination to obtain a license to practice medicine in the country in which the medical school from which he is graduated is located.

These recommendations had been previously endorsed by individual state medical licensing boards. The American student, therefore, who goes abroad to complete his medical education will do well to get in touch with the medical licensing board of the state in which he eventually intends to practice or with the Council on Medical Education and Hospitals before spending money and time, or he may find that he has made an error that will require years of study and additional expense to correct. The second recommendation serves to prevent exploitation of American students by some foreign medical schools. Obviously, the purpose of these resolutions is to safeguard the practice of medicine in the United States and to maintain the high standards of medical education that now obtain in this country.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should he addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not he in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should he addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

JUNE, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

THAT SOCIAL VALUES MIGHT BE PRESERVED

One of the most unfortunate results of the present financial chaos is the effect it has had on a class of citizens that makes any country worth while, namely, its professional class; not that our sympathy is any less for others who have suffered reverses. The professional man and woman have spent long years in preparation for their life work. During this period of education the mind is of necessity trained away from any thought of commercialism, the keynote of which is profit, that characteristic of non-professional callings. The true professional mind is ruled by an ethic which takes on the nature of religion, namely service to mankind without particular regard to remuneration. This idealism is the keynote of all professions at their best; at their worst they may be anything, even to pure charlatanism. We know many men past middle age in the medical profession whose lives have been characterized by unselfish devotion to their work. No sacrifice has been too great where the interest of the patient was at stake. While modesty might cause them to hesitate to acknowledge it, a well known sentence by one of the minor Latin writers would very aptly describe them, *Homo sum et puto nihil alienum qui humanum pertinet.*

Many have found themselves in straightened circumstances at a time when they have earned a certain respite from the exactions of professional life. How often have we heard the expression, "I'm just where I was thirty years ago"? That may be true financially but in no other sense. The man is to be pitied who has not advanced intellectually in the past thirty years, who has not acquired wisdom and a philosophy of life as his decades have one by one passed into history. Physically, however, he is a different man. The zest of the early years is gone: he is no longer eager in the dawn, and weary at night. The sands of life have run that he is brought nearer the psalmist's limit, never to return. Such men have exemplified the highest type of citizenship. Without them the nation would have been very poor indeed. They have supported those institutions which make for the betterment of their fellowmen, the school, the church, philanthropy not only financially but as a beneficent influence as well. They constitute the intelligent voter. Sometimes they serve in the councils of their community and state, and when this is made possible the state and community benefit. In the interests of the great body politic this class should be accorded a measure of protection for the great service they have rendered, so that the economic cataclysm may not destroy the infinitely more important social values.

CONTRACT PRACTICE

Contract practice is a moot subject. There are conditions, however, in which it is an absolute necessity and therefore works

to the interest of every one concerned. Among such instances would be a mining or isolated lumber region. Among the main arguments against contract practice is the fact that it deprives the patient of the free choice of a physician; on the other hand one object at least of the organization contracting with physicians is economy in medical service after the principle of mass production.

However, it is not our purpose to discuss at length a subject that has already received so much attention. Whatever may be the rights or attitude of private corporations, it is an injustice to the rank and file of the medical profession, that public service corporations should engage in any form of medical practice for their employees or families of employees, inasmuch as the medical profession are large supporters of the telephone, electric light, gas and, through taxation, civic corporations as well. Were such institutions to supply groceries, fuel, and other material necessities free to their employees the injustice would have been seen and a protest made long ago.

CHECKING UP ON THE OTHER DOCTOR

It occasionally happens in the experience of most of us that a dissatisfied patient asks our opinion of the results of treatment by some other physician, or he may seek some other physician's opinion of our methods and results. If there ever was a situation in which silence is golden, it is this. There is nothing to be gained by any one in venturing a judgment of any other physician's results, unless that opinion is honestly favorable. It is never possible to ascertain all the factors with which the attending physician or surgeon had to contend. A patient is wholly unlike a mechanism, all the factors entering into the construction or repair of which are capable of measurement. Hence the difficulties of a just evaluation of a physician's treatment. Besides, such an attitude often leads to a charge of malpractice. If the most approved scientific service always produced desirable results, and the opposite produced bad results, but how often have good results followed indifferent and poor results the most approved treatment. Costly and annoying suits might be prevented if greater care were exercised to avoid being intrigued into an opinion of another's work. In our estimate of another doctor's work the lines on the tomb of Sir Walter Raleigh in Westminster Abbey are most appropriate, even while we are in the flesh: "Should you reflect on his errors, remember his many virtues, and that he was mortal."

EDITORIAL NOTES

A bill has been under consideration by the state legislature the object of which is to provide medical and surgical care for the handicapped, which leads us to pause to consider who are the handicapped? We once knew a man who worked on a farm, when due to accident he lost his right arm. He afterwards graduated from one of the most noted European universities and eventually became president of one of Canada's leading universities and was as well one of the greatest publicists of the Dominion. *Mens sana in corpore sano* is a splendid slogan, but how many sound minds have been supported by bodies that have been anything but sound! The list is a long one in science, literature and art as well as in other departments of human endeavor.

Dr. Harry B. Knapp, who edits the *Bulletin of the Calhoun County Medical Society*, has scored a good point against the alleged prohibitive cost of medical care resulting from the newer technical devices used in diagnosis and treatment. The cost is, according to Dr. Knapp, more than offset in the shortening of the disability time of sickness as well as the diminished death rate that is due largely to greater technical skill in the diagnosis and treatment of disease. The financial burden to the patient is more than neutralized by the superior service he receives.

Many employes on city payrolls are complaining that they haven't received any remuneration for periods of from two to three months. If the depression continues they will be in the same position as many members of the medical profession to whom two to three months would seem a short time to wait for the emoluments of service.

A curious condition exists in a city in England. A section of the slum population

was moved to a new sanitary area and lodged in new buildings. It was found after five years the mortality in the new section was much greater than among those who remained behind in the slum district. Conditions were investigated by the health officers who accounted for the higher mortality in the cleaner environment from the fact that higher rents stinted the inhabitants on food with the conclusion that malnutrition was a greater factor in breaking down immunity to disease than dirt. The incident cited will sooner or later illustrate conditions that may prevail in our American cities except for the fact the majority of renters have a happy faculty of letting the landlord do the fasting and worrying.

WHAT IS AN X-RAY EXAMINATION?

(Dr. E. H. Skinner in *Colorado Medicine*)

"The x-ray examination of today with its multitude of refinements provides a definite answer to many special clinical questions and affords a comfortable corroboration of most clinical observations. The x-ray examination has progressed until the radiologist is no longer satisfied to report upon suspicious shadows; it is no longer a simple photographic technic; it is not merely the taking of films, followed by the dictated report. The x-ray examination is a systematic, painstaking procedure which uses every possibility of shadow value, properly correlated with the clinical history and social career of the patient. The x-ray examination is really a clinical examination with method, mechanics, and manifest artistry."

VITAMIN C ISOLATED

Some months ago it was reported that a Pittsburgh chemist had been successful in isolating Vitamin C. The discovery had the effect of evoking the following protest from the poet of the Manchester Guardian.

O why should they isolate Vitamin C
As if it were something unclean?
I always imagined such buglets to be
The essence of health and hygiene.
So why the pursuit of this promising pup,
This bright dietetic adorner,
In terms so suggestive of rounding it up
And making it stand in the corner?

The word is too *gauche* and ungracious; it ain't
Polite to use phrases that tend
To indicate quite an unpleasant complaint
Instead of a pal and a friend;
So don't let us "isolate" Vitamin C,
Whose aim is to comfort and nourish—
He ought to be wholly unfettered and free
To multiply vastly and flourish.

O were it not wiser and fairer by far
To round up the viruses bold,
Beginning with him who produces catarrh—
The bug of that foul "common cold"?
By all means detach him and put him away
'Mid wide and deserved execrations—
While virtuous vitamins gambol and play
At large with their friends and relations.

A PHYSIOLOGICAL SETXET

"King David and King Solomon led merry, merry lives,
They had many, many concubines and many, many wives,
But when old age came o'er them
With its many, many qualms,
King Solomon wrote the Proverbs and
King David wrote the Psalms."

—Contributed by the oldest and most actively alert member of the medical profession.

BACTERIOPHAGE*

A Clinical Aid

(With apologies to whoever wrote the first of these jingles)

The devil sat planning new ways to perplex,
New methods to trouble, annoy and to vex,
Old stunts he had tried, he no longer conceived
As sufficiently harsh to make humankind peeved.

Hand under his chin, brow knit in a frown,
He thought of the moron; he thought of the clown.
Each learned profession in turn he surveyed
Till at last he sat up. His decision was made.

He would pick on the doctor, he had right at hand
An excellent tool that was his to command
The bacillus, the coccus, the whole micro crew
Had served for his ends; he could use them anew.

His scheme was immense, and he wasted no time
To put into effect an idea so sublime
With a hiss and a pass he produced a mirage
A thing without being—bacteriophage.

To make it real hellish, a devilish fact,
He chose for its home the intestinal tract.
His cunning displayed for full well he knew
From thence it would spread, be ubiquitous too.

To bacterial cultures it soon found its way,
Their prompt disappearance at first caused dismay,
But then it was seen by researchers wise
How an obvious nuisance might turn out a prize.

Its potent effect in the test tube no doubt
Inside of the body might turn to account.
This reasoning then caused the devil to grin
And he sat back and watched for the fun to begin.

On each boil and pimple, on each painful stye,
On felon and ulcer they tried to apply
This potent new principle—fortunate age
To enlist in its service, bacteriophage.

There are those who believe, there are those who deny,
There are many indeed who won't even try
To apply to a wound the essence of dung
To use it in treating a heart or a lung.

The trouble thus started continues to grow,
Provides for the devil a hell of a show
As he sits in his Hades and watches the fun
Of a clinical argument fairly begun.

*The author of this poem, who wishes to remain anonymous, is a scientist who devotes his entire time to laboratory work. He is an occasional contributor to the program of the annual meetings of the Michigan State Medical Society.

SOCIETY ACTIVITY

REPORT OF THE COMMITTEE ON SURVEY OF STATE MEDICAL AND HEALTH AGENCIES

This report, the first of its kind, is being sent to officers and delegates the early part of June. After some two years of most persistent and diligent work on the part of Chairman Marshall and every member of his committee, and after an investment of nearly ten thousand dollars, the findings of the committee, its conclusions and recommendations are now presented to the House of Delegates and our members.

Comment is directed first upon the physical features of the report. The copy and charts are stereo-printed. The report contains 254 pages, with a total of some 135,000 words. The report was written by the subcommittees, the Director of Study and the committee members. It was reviewed and edited at committee meetings.

Every factual statement was checked and supported by evidence in the hands of the committee. Tabulations and computations were made from reports received by the committee, from questionnaires and investigations. The charts and graphs were made from collected factual data. The final summary was drafted in committee sessions. Collectively and individually many conferences were held with sources of information and with representatives of concerned agencies and organizations.

The committee's work was a most stupendous one. One not familiar with the details and procedures has no conception of the time that was consumed in committee work. A rough estimate is that each member gave at least ninety full days of his personal time. In one of the final committee sessions the committee secluded itself and did not leave their hotel rooms for forty-eight hours. The chairman has devoted one afternoon a week for over nine months in investigations that took him away from his home city. Similar contributions were made by his committee members. This report evidences a wonderful personal contribution for which our members are deeply indebted to those who were so sincerely faithful in their labors and the duty that was imposed upon them.

As a result of these efforts this exceptional and outstanding report is now presented. It is the first of its kind as far as we know. We are not aware of any state having made so complete a study. That fact alone causes the report to be of added value.

Final comment is withheld at this time. Before recording a final appraisal it is desirable to ascertain the reactions and opinions that the report evokes. These will be recorded and imparted at a later time.

It is recommended that:

1. Ample time be devoted to the reading and studying of the factual data contained in the report. Delegates should thoroughly familiarize themselves with all the facts uncovered by this study.
2. Endeavor to apply the findings to conditions in *your* county and formulate a local application in order that you may present a local program of policy and activity.

Inquiries or further requests for specific facts will be promptly answered by the State Secretary. Elsewhere in this issue will be found the call for a special meeting of the House of Delegates that will convene in Lansing, July 12, to receive this report.

The report is a contribution of the Michigan State Medical Society to public welfare.

OFFICIAL CALL

SPECIAL MEETING OF THE HOUSE OF DELEGATES

Grand Rapids, Michigan, May 31, 1933

To Officers and Members
County Medical Society

A special meeting of the House of Delegates of the Michigan State Medical Society is hereby called to convene in

Lansing, Michigan
On Wednesday, July 12, 1933, 10:00 A. M.
Ball Room—Hotel Olds

The purpose of this meeting is to receive the report of the Special Committee on Survey of State Medical and Health Agencies and—

1. To consider means whereby the report may be studied further and formulated into recommendations for submission to and action by the House of Delegates at its annual meeting in September.

2. To give further instructions to the Survey Committee.
3. To transact such other business as the Council may present to the House of Delegates for consideration.

County Societies should promptly designate their delegates and immediately certify their names to the State Secretary in order that credentials may be forwarded to each delegate. Each County Society is authorized to elect or appoint the same number of delegates that were certified to the last annual session.

By Order of the Council
B. R. CORBUS, *Chairman*
J. M. ROBB, *President*
H. J. PYLE, *Speaker*

Attest:
F. C. WARNSHUIS, *Secretary.*

NOTE:—The Credentials Committee will convene at 9:00 A. M. Delegates must file credentials with this committee in order to be seated. Please send in names of your delegates to the State Secretary at the earliest possible moment.

SCHEDULE OF CONFERENCES
for the Study of the
Report of Survey of State Medical Services and Health Agencies

* * *

Presidents, Secretaries and Delegates will convene as indicated in this schedule. These County Society representatives should arrange so that nothing will interfere with attendance. Bring your copy of the report.

REGIONAL CONFERENCES

Place	Date	Meeting Room	District	Assignment
Detroit 1st District	(To Be Arranged by Councilors and Delegates from Wayne County)		Wayne County	Brunk-Carstens Estabrook
Kalamazoo 4th District	June 23	Kalamazoo—6:00 P. M. Burdick Hotel	Kalamazoo-Calhoun Branch-St. Joseph Cass-Van Buren Berrien-Allegan	 Boys-Gorsline Christian Hafford
Ann Arbor 14th District	Tuesday June 20	Michigan Union 12 M. Ann Arbor	Washtenaw-Lenawee Monroe-Livingston	Bruce-Sinai
Pontiac 15th District	Tuesday June 20	Heldenbrand Hotel 6:30	Oakland-Macomb	Baker
Lansing 2nd District	Thursday June 29	Hotel Hayes Jackson, 5:00 P. M.	Hillsdale-Eaton Ingham-Jackson	McIntyre Christian
Port Huron 7th District	Thursday June 29	Harrington Hotel 4:00 P. M.	St. Clair-Sanilac Huron	Heavenrich Estabrook
Flint 6th District			Genesee-Lapeer Shiawassee-Clinton Tuscola	Cook Marshall
Bay City 10th District	Thursday June 22	Bay City Wenonah Hotel 6:30 P. M.	Bay-Saginaw- Midland-Gladwin Arenac-Isabella- Clare-Roscommon Ogemaw-Iosco-Alcona Gratiot	 Powers Urmston Marshall Christian
Grand Rapids 5th District	Wednesday June 21	Grand Rapids University Club— 6:00 P. M.	Kent-Barry-Ottawa Ionia-Montcalm Muskegon	Corbus LeFevre Warnshuis
Big Rapids 11th District	Tuesday June 20	Western Hotel 6:30 P. M.	Oceana-Newaygo-Mecosta Mason-Lake-Osceola Wexford-Missaukee	 Treynor Warnshuis
Traverse City 9th and 13th Districts	Thursday June 8	Park Place Hotel 6:00 P. M.	Manistee-Benzie- Leelanau-Gd. Traverse Kalkaska, Antrim- Charlevoix-Emmett- Cheboygan-Presque Isle Alpena-Montgomery Oscoda-Crawford	 McMullen Van Leuven Sinai

CENTURY OF PROGRESS MEDICAL BOOTH

Chicago, Illinois
May 5, 1933.

Dear Doctor:

You are doubtless aware of the fact that during the summer of 1933 The Century of Progress Exposition is being held in Chicago.

Chicago Medical Society has a booth in the Hall of Science Building in Group K. In this booth we will have information for the visiting physicians and will be glad to assist any of the members from your State in every way possible.

The Woman's Auxiliary of the Chicago Medical Society will welcome the wives and daughters of physicians.

I trust we will have the pleasure of meeting a large number of physicians from your State and of being some help to them.

Yours very truly,
COMMITTEE—CENTURY OF PROGRESS,
WILBUR POST,
JULIUS HESS,
HUGH N. MACKECHNIE, *Chairman.*

TWENTY QUESTIONS—TWENTY ANSWERS

1. As a member of your County and State Medical Society what is your standing in the American Medical Association?
2. What state medical society instructed its A. M. A. delegates to introduce the resolution that created the A. M. A. Council on Pharmacy and Chemistry?
3. What restrictions are placed on advertisements relating to drugs or therapeutic remedies?
4. What Council approves hospitals as suitable for interne training?
5. Where do you file your state license to practice?
6. Have you a right to impart to insurance companies information that you gained in treating a patient?
7. What precautions should you observe when treating fractures?
8. What are the requirements to become a Fellow of the A. M. A.
9. Who may participate in the program and discussions of the A. M. A. scientific sections?
10. After what length of time are claims for malpractice outlawed?
11. Upon whom does the responsibility rest for the acts of assistants and anesthetists in a surgical operation?
12. When and where was the present plan of organization of the A. M. A., State and County Medical units adopted?
13. What unit determines membership eligibility in the state and national bodies?
14. When have you the right to operate without the patient's or the patient's parents' consent?
15. What are the legal requirements imposed upon you when attending a confinement case?
16. Who publishes *Hygeia* and in what year was it first issued?
17. What steps should you take when threatened with suit or sued on a malpractice claim?
18. Who nominates a Councilor of a district?
19. To whom should you apply when desiring to take a post-graduate course in the subjects made available by your state medical society.
20. On what days and where will our next annual meeting be held?

(For Answers, see page 381)

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council met in the Hayes Hotel in Jackson on Wednesday, May 3rd, with Chairman Corbus presiding and the following members present:

Henry Cook, J. D. Bruce, C. E. Boys, Henry Carstens, President Robb, President-Elect LeFevre, and Secretary F. C. Warnshuis.

1. The Secretary presented a detailed report upon the finances of the Society. He further reported that 1,140 members had paid their 1933 dues and so far no dues had been paid by Wayne County owing to the bank moratorium. A statement was made by Councilor Carstens that the Wayne County Medical Society was giving detailed attention to the adoption of a financial program that would enable them to maintain their members in good standing. The Secretary reported upon the accounts payable and the operating obligations of the Society.

After a long discussion, on motion of Boys-Bruce, the general principle was adopted that in the matter of deceased members the Society could not establish the principle of returning the dues upon a pro rata basis, inasmuch as the Society in preparing its Annual Budget and program takes into consideration available income and is dependent upon the estimated financial income for the uninterrupted promotion of its activities. Therefore, as a general principle, the Secretary is instructed to not make any adjustment upon dues of deceased members, but when requests come from the families the Council will be glad to give individual consideration to such requests.

2. The Council having made material reductions in the appropriations and the expenses of the Society, the Secretary was instructed, upon motion of Cook-Bruce, to inform our Delegates to the American Medical Association that the State Society this year would defer only the expense of railroad and Pullman ticket and give in addition the sum of $20.00 to each delegate for hotel room.

3. The Secretary and the Chairman of the Publication Committee presented an outline of policy to govern the publication of the June, July and August issues of the JOURNAL, for the purpose of materially reducing the cost of publishing these issues to conserve the funds of the Society. Upon motion of Boys-Carstens the report was adopted.

4. The Secretary and President Robb presented an extended report upon the work of the Committee on Survey of State Medical and Health Agencies, and reviewed a number of chapters of this report that is now in the process of printing.

Discussion was then given to the devising of a plan for the distribution of the report and its early consideration by the House of Delegates. After considerable discussion it was moved by Carstens-Cook that the Secretary arrange for regional conferences, within three weeks after mailing of the report to County Societies, for regional review and study of the factual findings in the report and the conclusions of the Committee.

5. It was moved by Bruce-Boys that the Secretary issue a call for a special meeting of the House of Delegates to be held in Lansing, Wednesday, July 12, 1933. This special meeting to be called for the purpose of receiving the report of the special committee on Survey of State Medical and Health Agencies; to take such action as will lead to the appointment of special committees, charged with the duty of developing a program of policy related to the application of the recommendations contained in the report, and these committees to present their special reports at the regular meeting of the House of

Delegates in September at the Annual Session of the Society; and for the transaction of such other business as the Council may refer to the House of Delegates.

6. The Executive Committee reviewed the present legislative situation and authorized President Robb to convey to the Legislative Committee recommendations related to the Bills that are now in the Legislature.

7. The Executive Committee was informed of the transfer of the headquarters of the Board of Registration in Medicine to Lansing, and that the condition under which the transfer was made has seriously disrupted the functioning of the office of the Board. A request having come to the Executive Committee for assistance, the Secretary is hereby authorized to render such service as may be desired from him to aid the Secretary of the Board of Registration to reorganize the work of that office.

8. The Secretary reported upon the preliminary arrangements that are being rapidly perfected for the Annual Meeting in Grand Rapids. These were approved. The Secretary was authorized to confer with the Director of Scientific Exhibits, Dr. German, and to use their best judgment whether such an exhibit would be conducted this year.

9. Upon motion of Boys-Carstens, the holding of further district conferences was suspended until the Fall months.

There being no further business the Committee adjourned at 10:30 P. M.

F. C. WARNSHUIS, *Secretary.*

COUNTY SOCIETIES

BAY COUNTY

The following recent meetings of the society were held:

March 8, 1933: Combined meeting with the District Nurses' Association to hear Miss Olive Sewell, R.N., Executive Secretary, Michigan State Nurses' Association.

March 22: Dr. H. A. Luce, Detroit, spoke on "The Nervous Patient as You Meet Him in Your Office." Dr. Luce was accompanied by Drs. Brunk and Geib of Detroit.

April 12: Dr. Norman Miller, Professor of Obstetrics at the University of Michigan, spoke on "Lower Urinary Infections in the Female."

April 26: Dr. Charles Brown, University of Michigan, spoke on "Peptic Ulcers." William Burns, Executive Secretary, Wayne County Medical Society, who was in the city to address the Woman's Auxiliary, gave some of the high spots in the legislative activities in Lansing.

May 3: District Post-graduate Conference at the Wenonah Hotel, Bay City. There has been an unusual interest in local medical meetings thus far this year. A larger average attendance has been maintained than at any time during the past ten years.

Dr. R. C. Pochert, East Tawas, has been transferred to the Shiawassee County Society, having become located in Owosso.

Dr. Hugh Jardine, West Branch, has been transferred to the O. M. C. O. R. O. society.

Dr. W. S. Stinson, who took over the location of the late Dr. C. A. Stewart, was received into society membership.

The death of Dr. E. A. Hoyt, Honorary Member of this and the State Society, occurred at his home in Bay City, April 28, 1933.

L. FERNALD FOSTER, M.D., *Secretary.*

DICKINSON-IRON COUNTY

The Dickinson-Iron County Medical Society held its second meeting of the year on May 12, 1933, at the Milliman Hotel, Iron Mountain, Mich. Dr. Moses Cooperstock, director of the Northern Michigan Children's Clinic, was present as guest, and twelve members from Dickinson County responded at roll call. After dinner Dr. George Boyce, President of the society, after calling the meeting to order read a letter from F. C. Warnshuis, secretary of the State Society, relative to bill before the state legislature which among other things proposes to tax the gross income of physicians 3 per cent. The secretary of our society was instructed to send telegrams to our representative and to our state senator asking their coöperation in defeating this unfair and discriminatory tax.

A letter was also read from Dr. James Bruce of the University Extension Service asking us to make free use of Dr. Cooperstock of the Northern Michigan Children's Clinic for diagnostic clinics and for programs of the county medical society meetings.

The society then heard Dr. Cooperstock speak very instructively on the subject of "Acute Rheumatic Fever in Children." The program ended with the showing of x-ray pictures on "Silicosis" by Dr. L. E. Hamlin of the Penn Iron Mining Company, of Norway, Michigan.

CHARLES P. DRURY, *Secretary.*

GRAND TRAVERSE-LEELANAU COUNTY

At the regular meeting of the Grand Traverse-Leelanau County Medical Society held on April 11, 1933, Dr. E. B. Minor, Traverse City, was elected as Delegate to the 1933 annual meeting of the Michigan State Medical Society, and Dr. E. F. Sladek, Traverse City, as alternate.

The Grand Traverse-Leelanau County Medical Society met in regular monthly session at the J. D. Munson Hospital in Traverse City on May 1, 1933, at 3:00 P. M.

The afternoon was taken up by an orthopedic clinic conducted by Dr. Carl E. Badgley of Ann Arbor, a surgical clinic with Dr. E. B. Potter of Ann Arbor doing the operating, and a thorough résumé of the treatment of appendicitis given by Dr. Potter.

Following dinner at the Park Place Hotel, Dr. Badgley gave a very comprehensive talk on the various injuries and diseases involving the shoulder joint.

Then Dr. Paul Williams of Ann Arbor gave a very scholarly and practical paper on "Sciatica and Low Back Pain."

Dr. W. S. Ramsey of Ann Arbor gave a short talk on our recent epidemic of scarlet fever, measles and German measles.

The next day our four guests were taken to a stream, where, despite a constant cold rain, they succeeded in snaring thirty-three brook trout. This is to verify or correct any story they may tell about this trip.

E. F. SLADEK, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The April meeting of the Gratiot-Isabella-Clare County Medical Society with the Gratiot County Board of Supervisors, the Poor Commissioners, the County Clerk, C. L. Hicks, and Judge of Probate, James G. Kress, was held in the Wright Hotel, Alma, Thursday, April 13, 1933. Thirty-seven had dinner together, after which President T. J. Carney called the meeting to order, stating the purpose of the meeting. He first called on Dr. Kenneth P. Wolfe to describe the expense and work necessary to become a doctor.

Dr. E. M. Highfield then described some of the problems and cost of caring for the insane, feeble minded and epileptics; also explaining the sterilizing law. Dr. A. D. Hobbs then explained the cost of practicing medicine in the cities of Gratiot County.

Supervisors J. B. Smith, Miles A. Nelson, Archie Walters, and Don E. Hayes were called on to explain their problems. The Poor Commissioners, Fred Bradford, A. S. McIntyre and C. J. Chambers, also related their problems, and last, Judge of Probate James G. Kress explained some of the legal problems in the working of the afflicted adult act, the afflicted children's act and the sterilization law.

Altogether it proved to be a very profitable meeting. The general feeling was that coöperation between the poor commissioners, the supervisors and the doctors of the county should be very cordial.

Supervisor Archie Walters then called for a rising vote of thanks from the guests to the doctors for the fine supper and opportunity to discuss the above problems together.

The second April meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Friday, April 28, 1933. From four to six a Clinic on Skin Diseases was conducted by Dr. Loren W. Shaffer of Detroit. Some twenty patients were examined, the doctor making the diagnosis and giving the treatment in each case.

Nineteen had dinner together, after which President Carney called the meeting to order. The applications of Dr. Lois W. Torres of Mt. Pleasant and Dr. Michael Faber of Ashley were presented, each having been recommended by the Board of Censors; by motion each was elected to membership.

Resolutions were then read in memory of Dr. Rayburn B. Smith. On motion these were adopted, with directions that a copy be sent the family and the State Medical Journal.*

Dr. Loren W. Shaffer, using lantern slides, then talked on the Diagnosis and Treatment of the more Common Skin Diseases. This talk proved very instructive and on behalf of the Society President Carney thanked Doctor Shaffer for his kindness in coming to Alma to present this subject to our society.

E. M. Highfield, M.D., *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of the society was held Tuesday, May 16, 1933, at Edgewater Inn, Port Huron, Michigan.

Supper was served to three guests and sixteen members at 6:30 P. M. Meeting was called to order by President McColl at 7:40 P. M., with twenty-two members present.

The minutes of the preceding meeting were read and approved. Doctor Patterson made a preliminary report of his special committee for medical care of the indigent. Among other things he reported that the poor supervisor and the probate judge were both in favor of some arrangement with the medical society and that the supervisors' committee were willing to allow the amount appropriated in the past for medical care. However, Dr. Patterson believed we should proceed with caution because the poor allotment had been overdrawn several times recently. The amount of $90,000 spent last year would have to be divided into several parts to cover not only the remuneration of the physicians but also the cost of hospital care at Port Huron Hospital, at Pontiac and at Howell. He believed that some time would be required to work out the matter so that the interests of the profession and some slight remuneration for them would be possible. Doctor Heavenrich rose to state that he wished each member of the Society would report to the committee the number of cases treated by them at their offices or in other places as charity patients. These data are necessary to help the committee show the amount of work being done by the profession without any remuneration. Dr. Heavenrich announced a meeting to be held at Sandusky Friday evening, May 19. It was to be a joint meeting of the Sanilac and Huron County Societies and asked that as many arrange to attend from Saint Clair County as could do so.

Dr. R. T. Getty stated that it was the wish of the Boy Scout Council that the Society appoint a committee of three as a Public Health Committee to coöperate with that organization in the furtherance of any local movement along this line in our community. A motion was carried that the President appoint such a committee. Dr. A. L. Callery, Health Officer for Port Huron, announced that a supply of free biologics prepared and distributed by the State Health Organization was kept on hand at the hospital and that the members of the profession could obtain same as required.

Dr. Clarke McColl addressed the meeting upon the subject "Chronic Arthritis: Causes and Treatment" and Dr. John Mateer addressed the Society upon the subject, "Differential Diagnosis of Jaundiced Patients." Both addresses were splendid and very practical. After a discussion of the subjects the meeting adjourned at 10:20 P. M.

George M. Kesl, *Secretary-Treasurer.*

SHIAWASSEE COUNTY

The Shiawassee County Medical Society recently honored two of their older members at a dinner held at the Hotel Owosso.

The two men were Dr. W. E. Ward, of this city, and Dr. J. S. Shoemaker, of New Lothrop, both of whom have completed 50 years of medical practice. Both graduated from the University of Michigan with the class of 1883.

Practically all members of the medical fraternity of the county were present at the event, besides many distinguished members of the medical profession throughout the state. Included among the guests were three former presidents of the State Medical Society, these being Dr. Arthur M. Hume, of this city; Dr. Herbert Randall, of Flint, and Dr. Carl Moll of Flint. Each spoke briefly.

The principal addresses were given by Dr. George Le Fevre, of Muskegon, president-elect of the State Society, and Dr. James D. Bruce, of Ann Arbor, who was a former office associate of Dr. Shoemaker. Dr. Bruce is at present vice president of the Univer-

*See page 381.

sity of Michigan and director of post-graduate medicine at that school.

Messages of congratulation were read, these being written by Dr. J. M. Robb, of Detroit, president of the State Society; Dr. Angus McLean, of Detroit, another former president of the State Society; Dr. F. C. Warnshuis, of Grand Rapids, secretary of the State Society, and Dr. Fred Bruce, of Venice, Calif.

A particularly pleasing letter was the one written to Dr. Ward and Dr. Shoemaker from Dr. William J. Mayo, of Rochester, Minn., who is a former classmate of both men.

Other physicians present from out of the city were: Drs. Rowley, White and Handy, of Flint; Dr. Wagley, of Pontiac; Drs. Fillinger, Taylor and Parrish of Ovid; Dr. Wade, of Laingsburg; Drs. Bailey and Crane, Corunna; Drs. Halstead, Cudworth and McGregor, of Perry; Dr. Marsh, of Bancroft; Dr. Covert, of Garner; Drs. Carney, Bates and Richards, of Durand, and Dr. Soule of Henderson.

Drs. Shoemaker and Ward were made honorary members of the Shiawassee County Medical Society and were each presented with a gift from the organization.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

BAY COUNTY

The regular meeting of the Woman's Auxiliary to the Bay County Medical Society was held at the home of Mrs. Charles Groomes, Bay City. The usual buffet supper was served.

Following a business meeting, a pleasant social hour was spent in an old fashioned spelling bee. Most of the words were from the medical dictionary. Mrs. A. W. Herrick had charge of the program and there were twenty-eight members present.

The regular meeting of the Woman's Auxiliary to the Bay County Medical Society was held April 26, 1933, at the Duchess Tea Room, Bay City, with dinner at 6:30, for which twenty-four places were marked.

Mr. William J. Burns, executive secretary to the Wayne County Medical Society, spoke to the members on "Pending Bills in the State Legislature Which Concern the Medical Profession." He urged the members to become informed on the *facts* of the medical profession and to be able to correct any wrong ideas which come up in the other organizations.

A regular business meeting followed with Mrs. H. Payne Lawrence, president, in the chair.

Mrs. Charles Brown of Ann Arbor was guest at this meeting. Dr. Brown was speaker at the meeting of the doctors.

MRS. A. D. ALLEN, *Corresponding Secretary.*

OTTAWA COUNTY

The regular meeting of the Woman's Auxiliary to Ottawa County Medical Society was held April 11, 1933, at the Warm Friends Tavern, Holland. The ladies gathered around the luncheon table with Mrs. Winters, the president, presiding. At this time the new officers were elected and the meeting was turned over to Mrs. Kools of Holland, the new president. A social time was spent, with plans formulating for the next meeting at "Tulip Time."

GENERAL NEWS AND ANNOUNCEMENTS

The annual meeting of the American Medical Association will be held in Milwaukee June 12 to 16, inclusive.

The One Hundred and Thirteenth Annual Meeting of the Michigan State Medical Society will be held at Grand Rapids September 12, 13 and 14, 1933.

Dr. A. E. Voegelin presented a paper on "The Clinical Uses of Oxygen" before the East Side Medical Society, on April 27, 1933.

Dr. Franklin Peck of Detroit read a paper entitled Treatment of the Surgical Diabetic before the Ex-Intern Society of the Jefferson Hospital, Philadelphia.

A report of the ceremonies in connection with the unveiling of a memorial tablet to the memory of the late Dr. Walter Hulme Sawyer will appear in the July number of this JOURNAL.

County Presidents, Secretaries and Delegates have copies of the Report on the Survey of State Medical Services and Health Agencies. These copies are distributed for reference purposes.

Every member will be amply repaid if he attends the A. M. A. meeting in Milwaukee. It is suggested that if you cannot spend the entire week you at least attend the sessions on June 13, 14 and 15.

The May meeting of the Oakland County Medical Society was held on May 18, 1933, at the St. Joseph's Mercy Hospital in Pontiac, Michigan. The speaker of the day was Dr. F. A. Coller of Ann Arbor. The subject was "The Treatment of Advanced Acute Appendicitis."

CORRECTION: The obituary paragraph on the late Dr. George Slocum in the May number of this JOURNAL should have read, "Dr. Slocum graduated from the University of Michigan Medical School in 1889. He later studied under the late Dr. Flemming Carrow, Professor of Ophthalmology."

According to the report of the Board of Trustees of the American Medical Association there are 2,085 fellows of the Association and 944 subscribers who are not fellows, making a total of 3,029 receiving the *Journal of the American Medical Association* regularly in Michigan. There are 5,589 physicians in this State, making an approximate percentage of 54 receiving the *Journal of the American Medical Association.*

Dr. Frederick G. Novy, professor of Bacteriology and Director of the Hygienic Laboratory of the University of Michigan, was entertained at Flint on May 10 by 114 former students and friends, mem-

bers of the Genesee County Medical Society, at a testimonial dinner. Dr. Novy reviewed the progress of the science of bacteriology, in a very interesting address, from the beginning of Pasteur's work in 1881 to the present time.

The election of officers of the Wayne County Medical Society took place on May 16th, resulting as follows: president-elect, Dr. William J. Cassidy; secretary, Dr. E. C. Baumgarten; trustee, Dr. H. A. Luce. Dr. H. Wellington Yates, the retiring president, introduced Dr. A. W. Blain, the new president. The scientific program consisted of a paper by Dr. Dean Lewis, professor of surgery of Johns Hopkins University, who addressed an audience of about 800.

The Victor Vaughan Medical Club of Ann Arbor held its final meeting for the year at the Michigan Union on the evening of May 15th. A number of faculty members were present. The program of the evening consisted of two papers, one by Mr. Douglas on Medicine of the North American Indians; the other by Mr. Winslow on The History of Medicine in Michigan. Both papers were well prepared. They were discussed by Dr. W. B. Hinsdale, Dr. F. G. Novy, Dr. U. J. Wile, Dr. J. Sundwall, Dr. J. H. Dempster and Dr. S. S. Altshuler.

The Medical History Club of Detroit was entertained on the evening of May 13 by Mr. Carl Mellis, sculptor at Cranbrook. Mr. Mellis is one of the leading sculptors of the twentieth century. He at one time studied under Rodin. Mr. Mellis entertained the group, consisting of guests from Ann Arbor as well as Detroit. He gave an enlightening talk on the principles underlying his art, as well as reminiscences of the European sculptors of his acquaintance. After the talk Dr. B. H. Larsson, with his string quartet, entertained the group with several classical selections. The evening's æsthetic treat was followed by a buffet luncheon.

A convention of the Michigan Crippled Children Society was held at St. Joseph, Michigan, Friday and Saturday, May 5 and 6, 1933. A number of lay and professional groups were represented. Dr. Harold Fenech of Detroit was present and represented the medical profession of the State. Among the various topics under discussion was the proposed Crippled Children's Bill the purpose of which is to define the powers and limitations of the Michigan Crippled Children Commission. The bill as originally drafted contained rather sweeping clauses granting plenary powers to the commission. The committee on resolutions, however, after thorough discussion modified the provisions of the bill.

The annual clinic of the Detroit College of Medicine and Surgery Alumni Association will be held as announced in the May number of this Journal, on Monday, June 5, in the amphitheatre of Harper Hospital. President Larsson and his committee have spared no efforts to make the day one of the most profitable in the history of medical Detroit. Dr. George W. Crile of Cleveland and Dr. Walter C. Alvarez of the Mayo Clinic, Rochester, are the guest speakers. Dr. Crile will speak on the subject The Thyroid and Dr. Alvarez will elucidate his studies of The Mechanism of the Digestive Tract, In the evening a dinner will be held at the Statler Hotel at which Dr. Crile will be the speaker, his subject being The History of Anesthesia. Dr. Larsson has secured two noted musicians, namely Cameron McLean, the famous Scottish baritone, and Henri Siegle, violinist. The proceedings of the day are open to all members of the medical profession of the state whether they are graduates of the Detroit College of Medicine and Surgery or not.

The program is as follows:

Morning

College Auditorium, Mullet St. at St. Antoine

9:00 a. m. GEORGE W. CRILE, M.D., Clinic
Thyroid diseases and related conditions such as peptic ulcer, neurocirculatory asthenia, hyperthyroidism, constitional inferiority.

11:00 a. m. WALTER C. ALVAREZ, M.D. Illustrated Clinical Presentation
Clinical applications of recent discoveries in the physiology of the gastro-intestinal tract.

Afternoon

3:00 p. m. Detroit Institute of Arts—Exhibition and demonstration of Rivera's Murals.

Evening

6:30 p. m. Banquet—Statler Hotel
Speaker: GEORGE W. CRILE, M.D.
Topic: "Orthogenesis and the Power and Infirmities of Man"

Cost—Three dollars. Get your tickets early.

Class reunions, 1928, '23, '18, '13, '08, '03, '98, '93, '88, '83, etc.

All members of the profession are invited to attend.

DRS. W. E. WARD AND J. S. SHOEMAKER HONORED

The Shiawassee County Medical Society met recently at a dinner at the Hotel Owosso to pay respect to two of their members, namely Dr. Ward and Dr. Shoemaker, who had completed a half century of active practice. Both graduated from the University of Michigan with the class of 1883. The diners included practically the whole County Medical Society as well as a number of members throughout the state, including three former presidents of the Michigan State Medical Society, namely Dr. Arthur M. Hulme, Dr. Herbert Randall of Flint and Dr. Carl F. Moll of Flint. Addresses were delivered by Dr. George LeFevre, president-elect of the Michigan State Medical Society, and Dr. James D. Bruce of Ann Arbor, a former associate of Dr. Shoemaker. Dr. Ward and Dr. Shoemaker were made honorary members of the Shiawassee County Medical Society and each was presented with a fine electric clock as a gift from the organization. This JOURNAL joins in extending congratulations to Dr. Ward and Dr. Shoemaker on the attainment of fifty years of honorable service to their respective communities.

"Has any old fellow got mixed up with the boys, if so take him out without making any noise."

The May meeting of the "Seniors" of the Wayne County Medical Society was most successful. Such a large number were present that all were not able to be served with luncheon. The following members of the Class of '08 were present and signed the "Log": Drs. Wm. J. Cassidy, Emma L. Sheppard, Samuel Glassman, Henry L. Ulbrich, Herbert S. Karr, Edward B. Richey, Walton Rexford, J. M. Robb, Chas. S. Ballard, J. D. Hayes. Dr. John E. Clark (fifty-six years in active practice) presided in a manner that would make anyone of half his age envious of his vigor. The address to the Graduating Class was delivered by Dr. Chas. E. Jennings, who

modestly admits over a half century of active service to the ailing public. On behalf of the Class, Dr. J. M. Robb replied in his usual forceful and scholarly manner. It is rumored that Fred Cole and Tom Mullen were unable to be present with the other members of their Class on account of the infirmities of age. It is hoped that they will improve so as to join the group at a later date.

The following signed the roll: Drs. Louis J. Hirschman, R. E. Loucks, A. K. Northrop, J. A. McGarvah, R. S. Taylor, F. X. Zinger, Hugh Harrison, J. W. Cunningham, Jay W. Burgess, Wm. A. Hackett, R. C. Andries, Chas. Knaggs, C. D. Brooks, C. G. Jennings, John E. Clark, George E. McKean, S. W. Southwick, H. G. Palmer, J. L. Chester, Jas. B. Hodge, F. B. Ashton, David McClurg, Ignatz Mayer, J. N. Bell, D. B. Galerneau, Bruce Anderson, Jas. L. Hammond, Wm. J. Stapleton, Jr., Walter J. Cree, H. A. Luce, Rollin H. Stevens, Stephen H. Knight, I. H. Neff, Wm. E. Tyson, Neil Bentley, H. W. Hewitt, Robert Hislop, Frank T. McCormick, S. Kahn, Alex Cruikshank, R. S. Rowland, George Fay, Angus McLean, T. Malcolm Hart, R. C. Dodenhoff, Chas. F. Kuhn, A. W. Blain and A. L. Cowan.

TWENTY QUESTIONS—TWENTY ANSWERS

(Continued from page 376)

1. You are a member of the A. M. A. but not a Fellow. (See Answer 8.)
2. Michigan.
3. They must be accepted or approved by the A. M. A. Council on Pharmacy and Chemistry. It is well to remember this when salesmen call on you or mail is received.
4. Council on Medical Education and Hospitals.
5. With the County Clerk in the county or counties in which you practice.
6. No. To do so without the written consent of your patient will cause you to be liable for damages claimed and sued for by the patient.
7. To take x-rays before and after reduction and during treatment, and to call in counsel.
8. You must be a member of your county and state society, file a Fellowship application and pay annual dues of $7.00, for which you also receive the weekly issue of the *Journal of the A. M. A.*
9. Fellows in good standing.
10. Two years after the last day upon which you rendered professional services to an adult. In minors when the minor is 23 years of age.
11. The attending or operating surgeon.
12. Saratoga Springs, A. M. A. meeting in 1900.
13. The County Medical Society. It is the only avenue through which membership can be acquired.
14. When the patient is unconscious and when the nearest relative or guardian cannot be reached, and where immediate operation is necessary to save life. Even then one should seek the support of medical counsel.
15. To instill into the infant's eyes an approved prophylactic and to file a certificate of birth with the local registrar of births.
16. American Medical Association, April 1923.
17. (1) Consult medical legal advisor of your County Society. (2) Send all details to Chairman of State Society Medico-legal Committee. (3) Do not discuss the case with anyone else. (4) Do not retain local attorney unless advised by State Chairman. (5) Coöperate with State Chairman.
18. The delegates from the County Societies composing the Councilor district.
19. Director of the Department of Graduate Medicine, University Hospital, Ann Arbor, Mich.
20. September 12, 13 and 14, 1933, at Grand Rapids.

OBITUARY

DR. EVERETT A. HOYT

Dr. Everett A. Hoyt, of Bay City, died at his home on April 28th at the age of 74 years. He graduated from the University of Michigan Medical School in 1881. He began practice in Port Sanilac but moved to Bay City in 1884, where he practised to the time of his last illness. Dr. Hoyt was one of the oldest members of the Bay County Medical Society. He was an honorary member of the Michigan State Medical Society. He is survived by his widow and two daughters, Mrs. Jennie Reagan and Mrs. Carl Gunterman, both of Bay City.

DR. CONSTANTINE LEVENTIS

Dr. Constantine Leventis of Detroit died at his home May 8th at the age of 64 years. The cause of death was a heart attack. Dr. Leventis was born and educated in Athens, Greece. He came to Detroit and began practice in 1910. He turned his attention to research, particularly in tuberculosis, and, later, essential hypertension, for which he devised a treatment by means of what he termed humanized serum. He was a member of the Wayne County Medical Society, the Michigan State Medical Society and American Medical Association. He is survived by one son, Dr. Julius Leventis, of Phoenix, Arizona.

IN MEMORY OF DR. RAYBURN B. SMITH*

The Smith family lived in Ohio and in the early eighties they moved to Stockton, Kansas, where Rayburn was born on July 18, 1881. Soon after his birth the family returned to Ohio. In 1888 Benjamin F. Smith, the Doctor's father, purchased the Island in Crystal Lake, Michigan, and moved his family there in 1889. The Doctor graduated from the Crystal Public School, and taught school one term. He then entered the Saginaw Valley Medical School, where he graduated in 1903. He served one year as interne in the Saginaw General Hospital, where he died April 21, 1933, from typhoid fever.

On September 17, 1907, Doctor Smith married Inez B. Reynolds, who with two children, Reynolds, an Ensign in the Navy, and Marian, at home, survive him. The Smith and Reynolds families lived on adjoining farms in Ohio.

The doctor practised in Crystal, Michigan, for about twelve years. In 1917, after post graduate work in Chicago in eye, ear, nose and throat, he located in Alma, Michigan, where he soon gained a large practice in his chosen specialty. Patients came to see him from all the adjoining counties; frequently there would be more waiting than could be seated in his waiting room. The doctor rarely delegated any work to an assistant, his was a personal service, which made his hours long, so that he sometimes turned the key in his door in order to have time to write out his orders for glasses, and hurry away to a directors' meeting.

Doctor Smith combined to the best degree the art and science of the practice of medicine. Some doctors have the art without the science, some have the science without the art, but when you combine these two, with an attractive personality, a love for your work, and a charitable nature, you are bound

*These resolutions were read at the April 28th meeting of the Gratiot-Isabella-Clare County Medical Society and motion was made that a copy be sent to the family of Doctor Rayburn B. Smith and the State Medical Society.

to succeed. Such was Doctor Smith. He enjoyed the confidence and respect of every one who knew him. As a husband and father he was ideal. He was a member of the Presbyterian Church, where he served as President of the Board of Trustees.

As a citizen, because of his ability and unselfish nature, he was frequently drafted for service. He served two years as Mayor of Alma. He was president of the Alma School Board for nearly eight years. He was president of the Crystal Bank and one of the directors of the Alma State Savings Bank. He was a charter member of the Alma Rotary Club, a Past Master of Crystal Masonic Lodge, a member of Alma Blue Lodge and a Royal Arch Mason. He served his County Medical Society as President in 1924, and frequently acted on committees, this year being a member of the Committee on Public Relations. He was also a member and president of the Saginaw-Bay City Eye, Ear, Nose and Throat Association and a member of the Michigan State Medical Society and the American Medical Association.

We frequently eulogize the dead, but a mere recital of the times Doctor Smith was called to serve the community and his profession will convince anyone that he knew during life that this Society and the whole community held him in high regard, for his professional skill, his unselfish service, his cheerful, sunny disposition and true moral and spiritual worth. To repeat the words of his pastor at the funeral, "he did everything well and has gone to greater service."

As a society, we mourn his loss. We extend to his family our sincerest sympathy. Peace be to him, and peaceful be his rest. May his life long remain as an example to us of a truly beloved physician.

THE DOCTORS' LIBRARY

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits.

MEDICAL CLINICS OF NORTH AMERICA. (Issued serially one number every other month.) Volume 16, No. 4. (Boston Number—January, 1933.) Octavo of 256 pages with 33 illustrations. Per Clinic Year, July, 1932, to May, 1933: Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

MEDICAL CLINICS OF NORTH AMERICA. (Issued serially one number every other month.) Volume 16, Number 5. (Baltimore Number—March, 1933.) Octavo of 257 pages with 16 illustrations. Per clinic year July, 1932, to May, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

LIGHT THERAPY. By Frank Hammond Krusen, M.D., Director of the Department of Physical Medicine, Temple University School of Medicine, Philadelphia. Foreword by John A. Kolmer, M.D., Professor of Medicine, Temple University School of Medicine. 33 illustrations. Paul B. Hoeber, Inc., New York, 1933.

TEN YEARS OF OBSTETRICS AND GYNECOLOGY IN PRIVATE PRACTICE. By John L. Rothrock, A.B., M.D., F.A.C.S., formerly Associate Professor of Obstetrics and Gynecology, University of Minnesota. 8 vo., cloth, 222 pages, 9 illustrations. $3.00. New York: Paul B. Hoeber, Inc., 1933.

This work is a clinical report of data from an analysis of a series of 1,750 obstetrical and 1,345 gynecological cases. The author has laid stress on the clinical aspects of the more important conditions met with in obstetrical and gynecological practice.

KINESITHERAPY. A Monograph written for Oxford Medicine by A. B. Olsen, M.D., Department of Internal Medicine, Battle Creek Sanitarium.

This work is in the form of a brochure of twenty-six large pages. After an introduction going into the history of the subject the author devotes a section to a discussion of the term. Kinesitherapy is derived from two Greek words meaning motion and treatment; in other words, motion therapy. It is the scientific use of massage and exercise for hygienic or curative purposes. This monograph chapter is of particular value backed as it is by the experience of the Battle Creek Sanitarium, an institution which above all others of which we have any knowledge has carried out successfully these physical measures in the treatment of disease.

THE DUODENUM, ITS STRUCTURE AND FUNCTION, ITS DISEASES AND THEIR MEDICAL AND SURGICAL TREATMENT. By Edward L. Kellogg, M.D., F.A.C.S., Professor of Surgery and formerly Professor of Gastroenterology, N. Y. Polyclinic Medical School; Attending Surgeon, N. Y. Polyclinic and Gouverneur Hospitals; Visiting Gastrointestinal Surgeon, Broad Street Hospital. Foreword by George David Stewart, M.D., F.A.C.S.; chapter on Duodenal Parasites by Bailey K. Ashford, M.D., Sc.D., Professor of Tropical Medicine and Mycology, University of Porto Rico and Columbia University, N. Y., section on X-Ray Diagnosis by A. Judson Quimby, M.D., Professor of Roentgenology, N. Y. Polyclinic Medical School. 287 illus. (3 in color), 855 pages. Hoeber Surgical Monograph, Paul B. Hoeber, Inc., New York, 1933. Price $10.00.

This treatise on the duodenum is a welcome addition to the literature on gastroenterology. Its scope is as broad as its title allows, its content shows a wide acquaintance with the preceding literature and its viewpoint is not only mature but practical. Although the work emphasizes the diseases of the duodenum, attention is given the anatomy, physiology and bacteriology of the organ. These sections (except for the virtual omission of embryological considerations) are clearly and adequately treated in the first fifty pages of the work. A still longer section concerns the instruments and technic of examination of the duodenum. Clinical, laboratory and radiological methods are discussed in considerable detain. The section on x-ray diagnosis by Dr. Judson Quimby is illustrated by a number of well selected roentgenograms.

The greater part of the book deals with disease conditions, a chapter (or more) being devoted to each of the following conditions: duodenitis, duodenal diabetes, abnormalities of shape and position, diverticulosis, injuries, fistulæ, acute and chronic obstructions, herniæ, intussusceptions, foreign bodies, abscesses and tumors. A chapter written by Dr. Bailey Ashford deals with duodenal parasites. The discussion of disease characteristics is a complete consideration of the etiology, pathology, symptoms, diagnosis, prognosis, treatment and prophylaxis. Case reports are frequently included and a final and rather long chapter outlines operative procedures together with their indications.

Dr. Kellogg's book is well illustrated, many of the figures appearing for the first time. The illustrations, the concise method of writing and the frequent tabulations of new data and those from the literature, all aid in the clarity of the work. The volume is indexed according to subject and author and the bibliography covers a list of over three thousand references.

Altogether the work answers fully any demand for a comprehensive survey of our knowledge of the duodenum.

W. T. D.

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII JULY, 1933 No. 7

CONTENTS

Schilling's Hemogram in the Anemic State. E. A. Sharp, M.D., and E. M. Schleicher 383
Cancer. G. A. Seybold, M.D. 390
Contrasted Effect of Phenol and Merthiolate on Appendiceal Stumps. J. Arthur MacLean, Jr., M.D. 392
Gumma of the Pituitary Area. Raymond J. Sisson, M.D., F.A.C.S. 394
Secondary Suppurative Parotiditis. R. F. Weyher, M.D. 396
An Observation on a Very Common Cause of Allergy. I. I. Bittker, M.D. 399
Acromegaly, Complicated by Diabetes. Aaron Dubnove, M.D. 400
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 401
Editorial:
The Annual Meeting 404
An Important Committee Report 404
Health Insurance 405
Serendipity 405
Medical Economics:
Medicine's Way Forward. J. C. S. Battley, M.D. 408
Correspondence 411
Society Activity 412
County Societies 413
Woman's Auxiliary 414
Obituary 416
General News and Announcements 416
The Doctors' Library 418

SCHILLING'S HEMOGRAM IN THE ANEMIC STATE*

E. A SHARP, M.D., and E. M. SCHLEICHER
DETROIT, MICHIGAN

Schilling's conception of the biologic reaction to disease expressed by changes in the bone marrow, lymphatic system and the reticulo-endothelial structures epitomizes the "trialistic" hypothesis of leukocytogenesis.[2]

For the purpose of clarifying hematologic interpretations this brilliant exponent of hemogenic trialism identifies granulocytes, lymphocytes and monocytes with a myelogenous, lymphatic and reticulo- endothelial origin respectively.

QUALITATIVE AND QUANTITATIVE ASPECTS OF A HEMOGRAM

Normally the definitive leukocytic picture of Schilling consists quantitatively of stab or band neutrophils 3 to 5 (4); segmented polymorphonuclear neutrophils 58 to 66 (63); lymphocytes 21 to 25 (23); monocytes 4 to 8 (6); eosinophils 2 to 4 (3), and basophils 0 to 1 (0.5). (To avoid the fraction the author's modification of Schilling's differential chart employs 1 as the normal number of basophils.) The aberrant forms included in the hemogram are two primitive myelocytes less differentiated than the stab, but the transitional precursors of the stab that is ordinarily recovered in the peripheral blood stream.

In response to invading noxa the transition from the stab into the mature seg-

*From the Department of Experimental Medicine, Parke, Davis and Company.

mented neutrophil is interrupted in the bone marrow. Consequently the more primitive neutrophils (juvenile types) along with a larger number of stabs, appear in the peripheral circulation. This tendency to primitive reversion, signalized by a shift toward a less differentiated nuclear morphology, is designated as a "shift to the left." Slight changes in the relative percentages of stab and segmented forms, with an increased concentration of the former, typifies a degenerative phase in the neutrophilic centers of the bone marrow. If the exigency continues, or the exciting cause is intensified, juvenile neutrophils and embryonic myelocytes appear, denoting the beginning of bone marrow regeneration. A progressive left shift of this character may persist and eventually drain the bone marrow, in which case practically the entire neutrophilic pattern of maturity is replaced by cells of a primitive character in the peripheral circulation. This hyperregenerative left shift connotes excessive myelogenous stimulation and may induce ultimate myelopoietic exhaustion. Finally, in regard to the other cellular elements in the hemogram, an appreciable leftward shift is usually accompanied by a relative lymphocytopenia, monocytopenia and a decline in number or a complete suppression of eosinophils and basophils.

The recession of an extreme left-ward nuclear deviation toward a mature pattern is erroneously referred to as a shift to the right. For the sake of clarity a receding left shift should be regarded as a *definitive nuclear shift* in order to distinguish it from the primary right shift that occurs independently in various conditions and not necessarily even preceded by a left deviation. Qualitatively, the return of the neutrophils toward a definitive configuration is interpreted as a favorable prognostic sign and a correlative of clinical improvement.

The right shift is qualitatively and quantitatively an aregenerative phenomenon. Since neutropenia is generally a characteristic of a moderate or extreme degree of right nuclear deflection there is found in the hemogram an appreciable decrease in segmented neutrophils, a subnormal, or occasionally a normal, number of stabs and a relative lymphocytosis. The segmented forms usually show many lobes, 5 to 10 frequently, and the majority manifest proteolytic changes in their protoplasm. The right shift may, therefore, be considered as an adynamic nuclear deviation, exhibiting at the same time extreme maturity as a morphologic characteristic of the neutrophils along with possible degenerative features.

Since this brief treatise does not include a study of the hemogram in the leukemias the notable aberrations of the white blood cells in these dyscrasias will not be discussed. Even though a complete review of the Schilling hemogram is not within the scope of this report, it is important to introduce briefly the principal terms of the nomenclature. It is particularly apposite to recall the hematologic pictures described as *regenerative, degenerative* and *aregenerative,* in order to point out that mixed types of shifts may be encountered. Usually, in describing a mixed picture, the predominant phase of the nuclear shift is hyphenated with, but precedes, the secondary feature, for example: "regenerative-degenerative" left shift, meaning that the regenerative element dominates the pattern. The prefixes hypo- and hyper-, and the suffixes -penia and -osis, may be affixed to various hematologic terms for emphasis, as well as in the interest of word economy.

LABORATORY ASPECTS

The special technic for making preparations for the cellular study described by Schilling ought to be followed. We have found a consistent control of the pH of stains and diluting solutions desirable in this feature of hematology, as well as in the study of red blood elements, in order to obtain the best tinctorial results. The identification and classification of leukocytes require knowledge gained by actual microscopic and vital staining experience. Space does not permit an elaboration of these general comments. It may be of interest to point out, however, that a thorough study of one blood picture requires 45 to 90 minutes. One of us (E. M. S.) has found as much as two hours consumed in establishing a hemogram for the more intricate aberrant patterns.

OBJECT OF STUDY

During a study of several hundred cases of pernicious and simple types of anemia, we have had an opportunity to investigate the Schilling nuclear shift as it occurs in severe and moderate anemic states. In so

far as possible, a pretreatment hemogram has been made for every case and subsequently as frequently as possible during the course of therapy. Brief case reports, based upon hematologic data recorded in our own modification of Schilling's hemogram, are cited under pertinent captions. Not all phases of nuclear changes are being given due to the limitations of an essay of this character, but an attempt has been made to submit representative hemograms and correlate them with the salient clinical features of well-known anemic states.

I. NEUTROPHILIA

Hemogram No. 1 shows several cases of neutrophilia associated with severe and moderate erythrocytopenia. It must be borne in mind that a neutrophilia exists when the combined percentages of myelocytes, juveniles, stabs and segmented forms exceed 70 per cent of the total number of white blood cells. The following types of neutrophilia are of special significance.

1. *Neutrophilia without Shift.*—The percentage of neutrophils exceeds 70 per cent of the total number of leukocytes, largely composed of segmented forms. Only 3 to 5 per cent are stab neutrophils. This pattern of neutrophilia is usually found in hyperleukocytosis following violent muscular exertion, anemia due to hemorrhage, benign infections, malignancy, sodium chloride transfusions, pregnancy and chlorosis.

Patient 8 Jo, female, thirty-one years of age, was studied following a cesarean section. A leukocyte count of 12,600 per cubic millimeter, severe erythrocytopenia and moderate hypochromemia (color index 0.8) were found. The hemogram disclosed 72 per cent neutrophils, only 9 per cent being stab forms. Classically, the stab neutrophils should not exceed 5 per cent. The anemia was refractory to treatment.

Neutrophilia without shift represents physiologically compensated irritation — hyperleukocytosis. Occasionally a slight shift (5 to 8 stabs) is found coincidentally with neutrophilia in chlorosis and polycythemia, which nuclear deviation is interpreted as due to bone marrow hypertrophy. Doubtless, then, leukocytogenesis is accelerated in a fashion parallel to the erythropoiesis.

Patient 8 Jo probably manifested a leukocytosis as the result of pregnancy. The slight left shift, rather than indicating bone marrow hypertrophy, was actually a normal regenerative response of bone marrow centers relieved of an optimal physiologic demand.

2. *Neutrophilia with Hyperregenerative Shift.*—Several examples of this blood pattern are given in hemogram No. 1. The hyperegenerative or simple left shift is characterized by a neutrophilia with stab forms above 5 per cent. A nuclear shift of this type indicates a mild irritation of the neutrophilic centers. It may occur in benign or encapsulated septic processes, liver disease (with jaundice), chronic appendicitis, gynecologic infections and occasionally in measles.

Hypochromemia and erythrocytopenia in the cases cited were associated with achlorhydria in patients 1 St, 2 Ro, 3 Sh, 4 Gr and 6 Ca. Definite organic disease was present, also, as designated in the hemogram. Patient 3 Sh had had anemia for six years. The severity of her red blood cell deficit was enhanced by uterine bleeding. On admission generalized purpura and thrombocytopenia were found. The low percentage of stab forms (9) and high concentration of many-lobed, pyknotic, segmented neutrophils was specially classified as a "degenerative-regenerative shift" due to bone marrow depletion. This patient made a good hemopoietic recovery under treatment with Ventriculin (N. N. R.) and small doses of iron.

Patient 6 Ca had an achlorhydric erythrocytopenia of three years' duration. She was convalescent from influenzal infection at the time the hemogram was made. The slight irritative left shift may have been due to untreated syphilis. A readjustment in the nuclear index began after anti-anemic treatment was instituted. At the end of 110 days' treatment normal erythrocyte and hemoglobin levels were obtained, but the hemogram still showed a slight left deviation.

3. *Neutrophilia with Extreme Left Shift.*—An abnormal increase in neutrophils showing a marked increase in primitive forms coexisting with leukocytosis is a hyperregenerative shift to the left. It occurs in response to an overwhelming bone marrow excitation such as may be induced by acute infection, protozoan invasion, metal

poisoning and drug intoxication. It may accompany pregnancy or appear during physiologic leukocytosis.

Patients 5 Br, 4 Gr and 7 Lo, hemogram

that a slight left shift was still present at the end of 60 days of treatment, although the red blood elements had reached normal.

Patient 5 Br was studied during the

TYPE	MYEL.	JUV.	STAB	SEGM.	LYM.	MONO.	EO.	BAS.	HEMOGLOBIN %	TOTAL ERYTHROCYTES	TOTAL LEUCOCYTES
MORPHOLOGY											
NORMAL %	0	0	4	63	23	6	3	1	100	5.0	6-8000
		Hyperthyroidism - Severe Erythrocytopenia									
1 St	0	0	9	64	26	0	1	0	51	2.3	8,900
		73 Septicemia - Severe Erythrocytopenia									
2 Ro	0	0	14	60	25	0	0	1	45	2.4	10,000
		74 Lober Pneumonia - Severe Erythrocytopenia									
5 Br	0	0	40	50	8	2	0	0	38	2.4	14,500
		90									
10 days	0	2	18	67	10	3	0	0	40	2.0	10,300
		87									
17 "	0	0	12	65	20	2	1	0	42	3.0	7,900
		77 Syphilis - Jaundice - Severe Hypochromemia									
6 Ca	0	0	15	73	10	2	0	0	30	2.6	18,200
		88									
110 days	0	0	7	60	26	4	2	1	90	4.9	7,070
		67 Moderate Hypochromemia									
7 Lo	1	6	52	24	12	4	1	1	39	2.2	22,350
		82 Fibroid Uterus - Severe Erythrocytopenia									
4 Gr	0	9	7	57	20	4	2	1	59	2.8	9,480
		73									
60 days	0	2	9	56	22	7	3	1	98	4.9	8,300
		67 Menorrhagia - Purpura - Severe Erythrocytopenia									
3 Sh	0	0	9	73	16	2	0	0	21	1.1	10,100
		82 Pregnancy - Moderate Hypochromemia									
8 Jo	0	0	9	63	27	0	0	1	37	2.2	12,600
		72									

Department of Experimental Medicine, Parke, Davis & Co.

Hemogram No. 1. The nuclear shifts in eight cases of simple anemia. Neutrophilia is a notable characteristic of this group and can be readily associated with their concomitant clinical entities except in cases 4 Gr and 7 Lo in whom only uterine bleeding seemed to be operative.

No. 1, showed extreme left shifts with neutrophilia. Patient 7 Lo had a mastoiditis, but no infection or diseases comparable to those enunciated above could be demonstrated in patient 4 Gr. Her anemic state was of several years' duration. A fibroid uterus and bleeding hemorrhoids were present.

It is justifiable to suspect that pertinent factors were either overlooked in patient 4 Gr or that this type of hemogram may occur in anemia in response to blood loss. The concentration of leukocytes was at the upper limit of normal. It is worthy of comment

course of a pneumococcus lobar pneumonia. It is particularly noteworthy that 40 per cent of the neutrophils were stab forms at the onset and 90 per cent of a hyperleukocytic count (14,500) were neutrophils. These findings predicate a dynamic regenerative response of the bone marrow and may be clinically useful as a criterion for prognosis. Unfortunately, a hemogram could not be obtained on this patient after the seventeenth day on account of non-cooperation. The neutrophilic tendency, as recorded in the hemogram, however, was toward a normal leukocytic pattern.

II. NEUTROPENIAS

1. *Simple Anemia.*—Frequently the neutrophils show an absolute diminution with a low concentration of stabs exhibiting granular degeneration of the nuclei. This condition is interpreted as a manifestation of an impaired integrity of the neutrophilic centers in the bone marrow. The recognition of this change depends upon a comparison of the neutrophilic concentration with the total leukocyte count, since this type of neutropenia usually shows a relative lymphocytosis. Rarely a hyperleukocytic stage precedes the neutropenic phase. A neutropenic state may accompany typhoid fever, protozoal disease, tuberculosis, acute anterior poliomyelitis, pellagra, pernicious anemia, carcinoma and other entities indicated under the special sections to follow.

Four cases of neutropenia occurring in severe simple states are presented in hemogram No. 2. Patient 9 To, white female, forty-six years of age, was anemic two years previous to this observation, which was detected while undergoing an appendectomy and hysterectomy. Bleeding hemorrhoids had existed for several months before coming under observation. Physical examination disclosed brittle finger nails, glossitis, icteric tine to the skin, enlarged spleen and achlorhydria. Hematologic findings: Mean red blood cell diameter 6.6 u; color index 0.9. Salient features of the hemogram: leukopenia, neutropenia, slight regenerative left shift and extreme relative lymphocytosis. An actual blood loss due to rectal bleeding, undernutrition and a metabolic deficit with achlorhydria were the only factors elicited that might be responsible for the hemopoietic disturbance.

TYPE	MYEL.	JUV.	STAB	SEGM.	LYM.	MONO.	EO.	BAS.	HEMOGLOBIN %	TOTAL ERYTHROCYTES	TOTAL LEUCOCYTES
MORPHOLOGY											
NORMAL %	0	0	4	63	23	6	3	1	100	5.0	6-8000
9 To	0	Severe Erythrocytopenia 0	18	15	60	6	0	1	53	2.9	3,050
10 Sh	0	33 Severe Erythrocytopenia (Microcytic) 0	9	43	38	7	2	1	63	2.4	4,970
47 days	0	52 2	2	63	26	4	2	1	100	5.2	8,000
11 Mc	0	67 Pulmonary Tuberculosis - Severe Hypochromemia 0	7	50	41	0	1	1	51	4.9	8,000
12 Or	0	57 Prolonged Uterine Bleeding 7	20	14	55	1	3	0	20	1.2	1,150
4 days	0	41 5	16	25	44	7	2	1	26	1.4	2,000
10 "	0	46 5	36	19	37	2	0	1	25	1.1	1,010
15 "	3	60 22 42	15	2	57	1	0	0	16	0.7	1,500

Department of Experimental Medicine, Parke, Davis & Co.

Hemogram No. 2. A group of four cases of severe anemic states of an adynamic character. Neutropenia was predominant in the initial hemograms of these patients, all of whom were females giving a history of past or present abnormal uterine bleeding. Case 11 Mc had active pulmonary tuberculosis.

Patient 11 Mc is of interest since she was a middle-aged white woman, having a history of anemia of several years' duration. Upon admission the anemia was classified as a severe hypochromemia (color index 0.5) without erythrocytopenia. A true achlorhydria and moderately advanced pulmonary tuberculosis were found. Contrary to expectations the concentration of leukocytes was within normal limits, but there was a definite lymphocytosis and a degenerative neutropenic left shift. The degenerative left shift occurring in the blood picture of patient 11 Mc is principally endorsed as a finding of qualitative rather than quantitative significance. The slight increase of stabs does not numerically justify the designation of left-ward shift. Qualitatively, however, the stabs and segmented forms showed extremely degenerated nuclei and

protoplasmic vacuolation. The hemoglobin "lag" responded remarkably well to therapy.

Case 12 Gr showed a severe erythrocytopenia, accompanied by a leukopenia and a

TYPE	MYEL.	JUV.	STAB	SEGM.	LYM.	MONO.	EO.	BAS.	HEMOGLOBIN %	TOTAL ERYTHROCYTES	TOTAL LEUCOCYTES
MORPHOLOGY											
NORMAL %	0	0	4	63	23	6	3	1	100	5.0	6-8000
			Pulmonary Tuberculosis - Pernicious Anemia								
18 Tu	0	3	9	53	30	5	0	0	32	1.2	4,150
		65									
3 days	2	13	11	50	15	8	0	1	42	1.7	6,470
		76									
21 "	2	3	14	59	19	2	0	1	46	2.2	12,420
		78									
32 "	0	6	31	51	8	2	0	1	59	2.9	16,100
		88									
49 "	0	2	7	58	30	1	1	1	83	4.6	6,950
		67									
63 "	0	0	8	53	27	0	2	1	86	4.7	7,010
		61									
		Pernicious Anemia									
16 St	0	3	12	42	39	2	1	1	24	0.8	2,500
		57									
20 days	2	4	12	49	30	0	2	1	24	0.8	3,960
		67									
17 Cr	0	0	12	43	38	4	2	1	43	1.4	3,320
		55									
19 Mc	1	0	0	21	77	0	0	1	30	1.4	3,050
		22									
20 Bo	0	0	5	53	39	0	1	1	26	0.9	2,500
		58									
21 Ry	0	0	3	54	34	3	3	1	60	2.0	4,300
		57									
22 Mo	0	0	6	40	43	8	4	0	88	3.2	4,600
		45									

Department of Experimental Medicine, Parke, Davis & Co.

Hemogram No. 3. The neutropenic state and nuclear deviation in severe relapse of pernicious anemia (Addison-Biermer's type). Patient 18 Tu is particularly informative owing to the qualitative findings during the study of the neutrophils, which showed evidence of a toxic process, later found to be due to unsuspected pulmonary tuberculosis. An extreme regenerative left shift of the neutrophils accompanied remission brought about by adequate anti-anemic therapy.

lymphocytosis. A neutropenic left shift was predominatingly degenerative. Apparently there was a regenerative effort manifested by the bone marrow in the release of the juvenile and stab forms in excess of the differentiated segmented neutrophils. Inasmuch as the history of this young woman was one of excessive uterine bleeding for the past two years, a return to the primitive neutrophilic blood pattern was induced by actual depletion of blood elements from continued blood loss. As might be suspected, severe erythrocytopenia and thrombocytopenia persisted until a fatal termination occurred.

2. *Pernicious Anemia.* — Neutropenia, with a primary shift to the right, and leukopenia frequently accompany severe relapse of pernicious anemia. A reduction in the total number of white blood cells in relapse is a well-known hematologic finding, but the adynamic nuclear shift to the right disclosed by the Schilling hemogram may become a valuable point in the differential diagnosis of the anemic state. Furthermore, its use offers presumptive evidence of complicating disorders that may interfere with effective anti-anemic therapy. An example of this virtue of the hemogram is cited in case 18 Tu, hemogram No. 3. In the same hemogram are given also the pretreatment leukocytic blood pictures found in an additional six cases of pernicious anemia in severe relapse.

Patient 18 Tu, white, female, eighty years of age, was extremely ill when admitted. A moderate febrile reaction was present. The red blood cell level was 1.2 million per cubic millimeter. Physical examination confirmed the hematologic diagnosis of Addison's anemia. It will be seen

that the initial hemogram showed a leukopenia, a normal neutrophil concentration and a degenerative-regenerative left shift in contrast with the usual shift to the right. It was predicted, therefore, that there was present a toxic process probably of an infectious nature. Since infection inhibits the hemopoietic response to specific treatment, it was not only pertinent to ascertain the nature of the obscure complication, but to adjust therapeutic measures accordingly. A diagnosis of concomitant pulmonary tuberculosis was finally established. The unusual hemopoietic course of this patient is recorded in the hemogram. Treatment consisted chiefly of intramuscular injections of large doses of liver extract. There was an increasing regenerative left shift in this patient up to the twenty-first day of treatment, associated with hyperleukocytosis. The reticulocyte crisis was appreciably retarded as is to be expected in the presence of an active infection. After the first month of treatment erythropoiesis progressed satisfactorily and by the end of the second month both the red blood cell and hemoglobin levels attained normal.

The remaining six blood counts in hemogram No. 3 showed no variation from the shift to the right described by Schilling. The characteristic neutropenia is explained by Schilling as due to a "peculiar overmaturity of the neutrophilic cells in the bone marrow." Other anemic states exhibiting this type of nuclear degeneration and right shift occur in sprue, pregnancy, carcinoma, tapeworm infestation, malaria, uncinariasis, avitaminoses and the cachexia of debilitating disease.

COMMENT

The total number of leukocytes is usually given as 6,000 to 8,000 per cubic millimeter normally, with an average of 7,500 for healthy adults. Probably greater emphasis has been assigned to the abnormal concentration of white blood cells in the peripheral circulation than to any other aberration of leukocytes. Second only to leukocytosis has been the importance of distinguishing between cells of myelogenous and lymphatic origin. More recent differentiation, as pointed out in the above introduction, has enlarged the scope of cell differentiation to include those of reticulo-endothelial origin.

According to Schilling, the important feature of leukocytosis revolves around the production of neutrophils and the transition from primitive forms (myelocytes and juveniles) to the definitive type designated as stabs and segmented neutrophils. Furthermore, the primitive tendency or left shift may dominate the blood picture but not necessarily due to leukocytosis, since the left shift may be present with a neutropenia accompanying hypoleukocytosis, showing that the bone marrow has lost some proliferating power.

With due regard for the "unitarian" and "dualistic" theories of leukocytogenesis, it must be conceded that the broader classification of leukocytes by Arneth and the more recent adaption of the nuclear index by Professor Schilling has increased the diagnostic and prognostic significance of the white blood cell pattern. McGowan[2] has aptly postulated in erythrogenesis that "at any time in the life of an individual blood formation can go back to the basal Stem Cell." By analogy, therefore, this dictum is applicable to leukocytogenesis even though the trialistic origin of the circulating white blood cells is rejected. Hence it can be said that the Schilling hemogram is essentially a graphic index to the degree of aberration manifested by leukocytes in response to latent or obvious morbid changes in the organism.

Finally, in substantiation of the assertion that the Schilling hemogram is of diagnostic and prognostic assistance the cases of patients 11 Gr and 18 Tu are cited. In the first mentioned patient, it was early evident that the bone marrow was plastic but could not long sustain the strain of chronic blood loss. At the time of admission pulmonary tuberculosis was not suspected in patient 18 Tu. Since it is recognized that all active infections retard remission in pernicious anemia, the hemogram of this patient, indicating bone marrow irritation, contrary to the rule in relapse, served as a clue to the existence of an infectious complication.

Further critical study is required before final evaluation of the Schilling nuclear shift can be reached. A correlation of hemograms with clinical disease may disclose that its principal value relates to infections is a misconception.

* * *

The authors wish to express their sincere

thanks to the respective staffs of Harper and Grace Hospitals for the opportunity to study adequately the hematologic features and therapeutic responses of these patients.

REFERENCES

1. McGowan, J. P.: Pernicious Anemia, Leucæmia and Aplastic Anæmia. P. B. Hocber, New York, 1928, p. 39.
2. Schilling, Victor: The Blood Picture and Its Clinical Significance. 7th and 8th revised editions, translated by Dr. R. B. H. Gradwohl, The C. V. Mosby Company, St. Louis, Missouri, 1929.

CANCER

G. A. SEYBOLD, M.D.
JACKSON, MICHIGAN

If one reviews the literature and examines the records of the larger clinics, he is astounded to find that, in the cure of cancer of the stomach, failures constitute more than 90 per cent. When we find about 60 per cent of the cases that come for treatment are inoperable, we must conclude that these results are due not so much to imperfect diagnosis or to inefficient surgery, as to the fact that the cases come for consultation too late.

In order to accomplish more in the treatment of cancer of the stomach, the medical profession has an added duty, aside from the making of diagnoses and instituting treatment. We must educate the laity in every phase of cancer; we must urge the laity to undergo periodic examinations so that the disease may be discovered as early as possible. The laity must be taught that any case of indigestion that continues more than a week or two, requires a careful examination consisting of a painstaking history, gastric analysis, blood and stool examination and frequent and repeated fluoroscopic and x-ray plate examinations. If the case is suspicious and carcinoma can not be ruled out, an exploratory operation should be performed. In addition to broadcasting information to the laity and urging early consultation and examination, the medical profession should be stimulated to give the kind of service that will make early diagnoses possible.

The cardinal symptoms and signs of the text-book type of cancer of the stomach are known to every physician. However, every case is different and a distinct problem by itself—thus making a diagnosis the more difficult. Early cancer is not associated with weakness, emaciation and cachexia.

In the study of 365 consecutive deaths from cancer of the stomach, by Saltzstein and Sandweiss, collected through the Cancer Division of the Department of Health of Detroit, it was found that only 3 per cent had undergone a radical operation with primary recovery. Of the cases in which data could be obtained, it was shown that 24.7 per cent had suffered long, previously, from indigestion and that in 75.3 per cent of the cases, the onset was sudden. Cancer of the pylorus usually start with typical symptoms of indigestion, history of ulcer, pain, vomiting, hemorrhage and sometimes obstructions; whereas, cancer in other and less favorable surgical portions of the stomach have atypical symptoms. In checking up the efficiency of the roentgen examinations, it has been shown that about 85 per cent are diagnosed positive or suspected cancer, whereas the remaining 15 per cent of examinations were definitely misleading.

In the differential diagnosis of tumors of the stomach, ulcer and carcinoma predominate. The predominating type of neoplasm is the adeno-carcinoma. Tuberculosis and syphilis are rare and it is impossible to clinically differentiate them from cancer.

In spite of our present-day elaborate histories, our vast clinical experience and elaborate laboratory and x-ray equipments, the differential diagnosis between ulcer and cancer of the stomach is not an easy problem. This is illustrated in the study of forty-one consecutive cases of stomach cancer in physicians, who, as a class, are better able to make an early diagnosis. From the histories, twenty patients had an average duration of twelve months, seven patients had an average duration of less than five months and one patient never suffered any indiges-

tion. Ulcer of the stomach entered into the diagnosis of more than half of the cases.

Among other tests valuable in differential diagnosis is the histamine test. Ergamin acid phosphate is used subcutaneously in the dose of 0.1 mg. per kilo. body weight. Histamine induces secretion of hydrochloric acid in non-carcinoma patients, who fail to show HCl after an ordinary test breakfast but will not induce HCl in cancer cases.

If, after all the chemical, laboratory, and x-ray examinations, carcinoma cannot be ruled out, an exploratory operation should be performed. If necessary, the stomach should be opened and the lesion palpated from the inside.

Taking into consideration the size of the lesion, in the differential diagnosis between ulcer and carcinoma of the stomach, Alvarez made a study of the resected specimens of 638 gastric ulcers and 683 gastric carcinomas. His study showed that four out of five benign ulcers were smaller than a dime and ninety-two out of a hundred were smaller than a quarter. Judging by size alone there is one chance in two that an ulcer smaller than a quarter is already cancerous. If the ulcer is larger than a quarter but smaller than a silver dollar the chances are two to one that it is a cancer and if the ulcer is larger than a dollar it is almost sure to be a cancer.

After the study and analysis of many hundreds of resected specimens of the stomach and duodenum, Dr. McCarthy of the Mayo Clinic has made some very interesting discoveries. In Dr. McCarthy's experience, he has found that the smallest easily recognizable microscopic carcinomata of the stomact have been in the borders of ulcers without associated involvement of the base. McCarthy and his associate, Broders, found in the borders of chronic ulcers of the stomach gastric tubules with normal columnar cells, with small spheroidal nuclei; without visible nucleoli; these were chronic ulcers and were not carcinomatous. However, they found in other very similar appearing chronic ulcers gastric tubules with cells not columnar but of a spheroidal shape and with large nuclei. These cells were often morphologically indistinguishable from carcinomatous cells.

McCarthy also shows in his records that in a fair percentage of patients whom he has examined and in which this peculiar cytologic change was found in the tubules and often outside the tubules, and which were diagnosed chronic ulcer and treated by excision, about 15 per cent later died of carcinoma.

Furthermore, in the study of undoubted carcinomatous lesions of the stomach, McCarthy believes that a very large percentage show microscopic evidence of having developed upon a previous ulcer.

Although we cannot say that all ulcers of the stomach will become malignant or that all carcinomata of the stomach originated in an ulcer, the mere possibility of these events in a large percentage of cases and the relatively low mortality rate in proper surgical removal, we believe that resection is the treatment of all gastric ulcers.

Tuberculosis of the stomach is diagnosed only by the histopathologic methods. As surgical treatment is the treatment to be applied to all chronic organic lesions of the stomach, an absolutely definite preoperative diagnosis is not necessary.

Sarcoma of the stomach is also rare and is difficult to differentiate from carcinoma. Covering a period from 1908 to 1929, fifty-four cases of sarcoma of the stomach were found at the Mayo Clinic. Ages ran between ten and sixty-seven—average, fifty-three. The average duration of symptoms was 18 months and the symptoms consisted of dyspepsia, epigastric pain, tumor, bleeding, weakness, loss of weight and vomiting. Out of forty-two cases in which gastric analysis was done, twenty-five showed free hydrochloric acid. Out of fifty-four cases, thirty were diagnosed carcinoma and only two were diagnosed sarcoma prior to operation. Fifty-three cases, out of fifty-four, came to operation and fifteen were found to be inoperable. The operation performed was partial gastrectomy. Postoperative radiation was employed in fourteen cases.

Lymphoblastoma of the stomach is another rare tumor of the stomach which should be, if possible, differentiated from carcinoma because of the fact that x-ray therapy has a great deal to offer in dealing with lymphoblastoma and has little or nothing to offer for carcinoma.

Quoting Ruggles and Stine:

> There is no type of lesion or region of involvement characteristic of lymphoblastoma and therefore no characteristic roentgen findings. When,

however, gastric peristalsis persists with a lesion of the stomach, it is most likely to be lymphoblastoma; the persistence of the peristalsis is due to the lateness of invasion of the muscular coat. Gastric polyposis in a patient suspected of malignancy clinically should be regarded as a lymphoblastoma and roentgen therapy used.

Localized sharply defined patches of redundant stomach mucosa—well designated "circumscribed giant rugæ"—caused by an over-development of hyperplastic mucous membrane and normal development of muscular layer, have erroneously been diagnosed carcinoma.

As to the operability of cancer of the stomach: resection of the growth with the involved glands is the operation of choice. If the mass is movable and the glands (except those of the lesser and greater curvature of the stomach) are not involved, the prognosis is fair. It is poor surgery to increase the risk by removing glands, when all involved glands cannot be removed.

Growths in the lesser curvature of the stomach give a high percentage of recoveries; whereas growths in the central or pre-pyloric region with obstruction have the highest mortality rate. Cancer of the stomach occurs twice as often at the lesser curvature as it does at the pylorus.

In resection, it is best not to separate adhesions to the mass for it has been found that cancer cells migrate readily through adhesions and it is wiser to sacrifice a portion of omentum or a portion of any other organ so attached. Of course, when the pancreas and liver are grossly involved, no surgery is advisable.

CONTRASTED EFFECT OF PHENOL AND MERTHIOLATE ON APPENDICEAL STUMPS

J. ARTHUR MacLEAN, Jr., M.D.†
ST. JOSEPH'S MERCY HOSPITAL, ANN ARBOR, MICHIGAN

Appendicitis was first treated as a surgical disease about 1880. The early surgery consisted in what we now consider bizarre to say the least. The site of rupture was closed with catgut and the appendix returned to the abdomen with a drain. Other operative procedures consisted merely of drainage. It was 1895 before there was a rational operative procedure adopted for appendicitis. Fowler was one of the first to publish an outline for the surgical technic which he considered essential. He described an operation where a "cuff" of peritoneum was formed and the ligated stump of the appendix was covered with this "cuff." As late as 1900, however, complete removal of the appendix was not considered essential and often as much as half was left if it was not macroscopically involved. In 1902 Fowler published another monograph in which he discards his own "cuff" procedure. At this time he advocates merely ligation, cauterization, and dropping the stump back into the abdomen. Dawbarn in 1895 is given the credit for the first purse string suture at the base of the appendix. He did not ligate the stump but crushed and cut it and then inverted it into the cecum with a previously laid purse string. This procedure was quite widely followed until there were a number of postoperative hemorrhages into the cecum from the unligated stump, since the proximal fifth of the appendix in 80 per cent of cadavers studied shows the blood supply to come from the cecum. About the same time that Dawbarn described his purse string Edebohls described a technic for complete inversion of the appendix. He turned the appendix inside out and left it hanging into the colon, unconcerned about its subsequent fate. This is technically impossible in many cases and was soon discarded. Deaver about 1905 described a technic where the appendix was cut off flush with the cecum and a mattress or Lembert suture was passed in the wall of the cecum to close the hole that remained. He also soon discarded this operation. In his own words, "It is a risky procedure and the slightest break in technic will result either in perforation or peritonitis." It was about 1904 that Seelig, who did some bacteriology on the appendices that he removed, discovered the danger of simple ligation. He advocated the use of an antiseptic or chemical cautery after amputation of the appendix. Previously the actual cautery had been used by some men. Seelig used phenol followed by alcohol. He finally came to the conclusion that burying the stump or invaginating was not necessary. His final opinion was to

†Dr. J. Arthur MacLean, Jr., obtained his pre-medical work at Butler University and the University of Michigan, 1925-28. He was graduated from the University of Michigan Medical School in 1932. He served his interneship at St. Joseph's Mercy Hospital, Ann Arbor, where he is now Senior Resident.

ligate, amputate and then cauterize; using the word cauterize to mean sterilization, since later he states, "A properly sterilized stump has no actual or potential danger." Kelley in 1905 also pointed out the possible dangers of inadequately treating the stump and leaving it still infective. He maintained that in acute cases where the infection was active the stump should never be buried since it could not be sterilized with any chemical or other procedure then known. H. A. Royster in 1927 says, "Burial of the stump under the serosa or its invagination deeper into the wall of the cecum are reasonably safe provided the sterilization of the stump is complete." He suggested lifting the mucosa, which protrudes slightly from the tied stump, and cutting it off with a pair of curved scissors before the phenol is applied. His is one of the most thorough, recent monographs on appendicitis.

The only thing common to all of the surgeons mentioned above is their agreement that whatever else is done the stump of the appendix should be adequately sterilized to avoid complications. This sentiment is partially born out by the mortality statistics during the years that these men were developing their technic. With each improvement in technic the mortality rate fell until about 1924 and since that time there has been a sporadic but persistent rise.

It is still almost universal practice to very carefully treat the incised stump of the appendix with pure phenol followed by alcohol and then either invaginate, bury, or leave the stump exposed according to the surgeon's particular technic. If, as will be subsequently shown, the stump of the appendix is not sterilized by the phenol and alcohol, either leaving it exposed or burying it is bacteriologically unsound; since, in drawing up the purse string about the still infected stump, one is merely "pocketing" the active bacteria. It is probably true that if the organisms thus "pocketed" continue activity, any collection formed is more likely to rupture into the cecum than into the peritoneal cavity. An inadequately sterilized stump, however, not draining into the cecum could be responsible for any or all of the abdominal complications seen in what were originally aseptic cases. Many interval appendectomies, barring complications, preoperatively contemplate only seven days hospitalization. A strictly localized invasion of the cecal wall from a septic appendiceal stump, if it caused nothing more than a mild fever for several days, would prolong this hospitalization.

It is the purpose of this paper to show that tincture of merthiolate used on the appendiceal stump is far more effective than the commonly used phenol and alcohol technic.

The appendices removed in twenty-five consecutive cases were doubly clamped with sterile hemostats. The appendix was then cut through between the forceps with a sterile knife. The bulk of the appendix was cut loose from the one hemostat, leaving four available stumps, of which three were used in each case. One of these stumps was treated with phenol followed by alcohol; another was treated with tincture of merthiolate (1-2000); the third was left untreated. The three stumps were then cultured by smearing on fresh nutrient agar plates. In each case the solutions were applied with sterile applicators having a small twisted wad of cotton on the end. This cotton tip should be small enough so that complete treatment of the exposed lumen can be attempted.

Because of the marked bacteriostatic effect of merthiolate as well as bacteriocidal action the plates were incubated for four days. The results are shown in the accompanying table. One of the appendices was removed incidental to a cholecystectomy and consisted merely of a hard fibrous cord from two to three millimeters in diameter. Even the untreated stump of this appendix was sterile. Other than this case, all but two of the stumps treated with phenol and alcohol yielded abundant growth in twenty-four hours. Of those treated with merthiolate, all but three were sterile at the end of the fourth day. Of the three which showed growth, two showed growth on the second day and one on the third day. The organisms which occurred were not B. coli in any case but were, respectively, short chain cocci in cases three and six, and a diphtheroid appearing organism in case ten. Since all of these cases appeared early in the series greater care in applying both solutions was used from then on. No more time, however, was used than would be compatible with rapid operative technic. The phenol series remained universally positive in spite of increasing the time during which the phenol might act before culture.

The use of phenol at operation is attended by a certain amount of hazard since a drop of phenol on the wall of the cecum or ileum can seldom be treated with alcohol before serious necrosis has occurred. The dangers of this are obvious. This is not the case with merthiolate. On several occasions while doing laparotomies on rabbits for the examination of the ovaries the tincture has been introduced into the peritoneal cavity and on subsequent laparotomies no damage has been found; nor have the animals so treated failed to recover as readily as others.

Case	Merthiolate Stump	Phenol Stump	Control	Remarks
1.	sterile	//	////	
2.	sterile	sterile	////	
3.	/	///	////	short chain cocci
4.	sterile	//	///	
5.	sterile	/	////	
6.	/	///	////	short chain cocci
7.	sterile	sterile	////	
8.	sterile	////	////	
9.	sterile	///	////	
10.	/	///	////	
11.	sterile	//	////	
12.	sterile	////	////	
13.	sterile	///	////	
14.	sterile	///	////	
15.	sterile	///	////	
16.	sterile	//	////	
17.	sterile	////	////	
18.	sterile	sterile	sterile	obliterated app.
19.	sterile	///	////	
20.	sterile	///	////	
21.	sterile	////	////	
22.	sterile	//	////	
23.	sterile	///	////	
24.	sterile	/	////	
25.	sterile	//	////	

Key:
One colony..... /
Three to five colonies..... //
Five to ten colonies..... ///
More than ten colonies (or growth as abundant as control)..... ////

CONCLUSIONS

1. Phenol followed by alcohol does not sterilize the incised stump of the appendix.
2. Tincture of merthiolate (1-2000) sterilized twenty-two out of twenty-five appendiceal stumps using the same method of application as used for phenol.
3. Tincture of merthiolate is not injurious to the peritoneum.

BIBLIOGRAPHY

1. Dawbarn: Internat. J. Surg., N. Y. (May), 1895.
2. Deaver: Ann. Surg., Phila., 1898, 27:79; Ann. Surg., Phila., 1926, 84:571; Am. Med. (Oct. 17), 1903.
3. Duggan: Boston Med. and Surg. J., 1925, 192:247.
4. Edebohls: Am. J. Med. Sc., Phila., 1895, 160:650.
5. Field: Journal-Lancet, Minneapolis, 1925, 193:490.
6. Fowler: Treatise on Appendicitis, 1st edition, 1894, and 2nd edition, 1902.
7. Hotz: Schweiz. Med. Wchnschr., 1926, 56:8.
8. Kelley: Vermiform Appendix and Its Diseases, 1905.
9. Lowe, H. A.: Mo. State Med. Assn. Jour. (November), 1931, 28:525.
10. Marks, Powell and Jamieson: Merthiolate bacteriocidal powers. J. Lab. and Clin. Med., 1932, 17:443.
11. Marshall, M. S.: Merthiolate a new antiseptic. Calif. and West. Med., 1931, 30:43.
12. Powell and Jamieson: Merthiolate as a Germicide. Jour. Hyg., 1931, 13:296.
13. Randall: J. Mich. State Med. Soc., 1921, 20:435.
14. Royster, H. A.: Appendicitis (Surgical Monograph), D. Appleton & Co., 1927.
15. Seelig: Surg. Clinic. No. Am., 1925, V:1375.
16. Sloan, H. C.: Appendicitis. Practice of Surgery (Dean Lewis), Vol. 7, 1932.

GUMMA OF THE PITUITARY AREA

CASE REPORT

RAYMOND J. SISSON, M.D., F.A.C.S.†
DETROIT, MICHIGAN

A gumma of the pituitary area is reported because of its infrequency of occurrence and the field changes which are found are characteristic of a pituitary tumor. Luetic disease of the hypophysis has been observed in hereditary syphilis by a number of authors. Acquired syphilis of the hypophysis is uncommon. Cushing reports one case of gumma of the hypophysis associated with glycosuria and polyuria. Simmonds found post mortem nine hypophyses with syphilitic changes out of seventeen hundred examined.

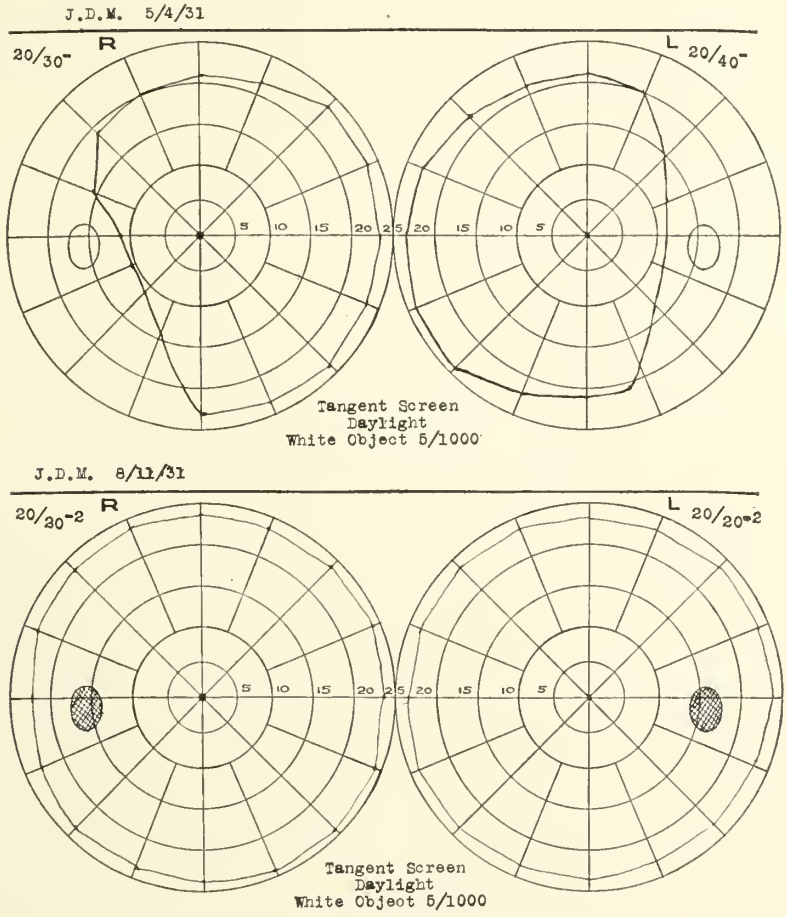
Mr. J. D. M., aged forty-eight, was first seen May 4, 1931, complained of failing vision for distance and reading, headaches, double vision, and drooping of left upper lid, all of one month duration. Syphilitic infection was denied and one Wassermann reported negative. There was no polyuria and the general physical examination was reported negative.

O.D. 20/30 minus improved to 20/20 minus. O.S. 20/40 minus improved with correcting lenses to 20/30 plus. The left upper lid showed marked

†Dr. Sisson is a graduate of Syracuse University, where he obtained the degree of B.S. He is also a graduate of the Syracuse Medical School, as well as a graduate of the Massachusetts Eye and Ear Infirmary. His specialty is ophthalmology. He is a member of the staff of Harper and St. Mary's Hospitals.

ptosis. Diplopia was present in all fields. The left pupil measured 7 mm., and the right 4 mm. in diameter; both reacted to light direct and consensually, but feebly to accommodation. The vitreous of both eyes had a large number of fine and coarse opacities, both optic discs were choked, the left

A lesion near the chiasm such as a gumma, may give field changes similar to those of a pituitary tumor. Pressure interference from a tumor is most common, syphilis and multiple sclerosis much less frequent. An intracerebral lesion may distend the third ventricle which, in turn, presses upon the



three diopters, the right two diopters. The veins were engorged and tortuous. There were several small spots of chorioretinitis present, more in the left than in the right. There were no hemorrhages or exudate. The visual field examination disclosed a bitemporal hemianopsia, slightly more advanced on the left side. The Wassermann was repeated and reported strongly positive. Large doses of sodium iodide intravenously, potassium iodide by mouth, and mercury by inunction were advised. A subsequent examination, November 8, 1931, disclosed vision in each eye without correcting lenses was 20/20, improved to normal with correcting lenses, and with proper presbyopic correction patient read Jaeger 0.5 easily. There was no ptosis and no double vision. The visual field was normal and the blind spots were not enlarged. The vitreous contained a few fine opacities, and the disc had receded to its normal position. Considerable urging was required for this patient to agree to continue his treatment. A year later he was still entirely free from symptoms. X-rays of the skull showed a normal sella turcica.

chiasm and produces hemianopsia. Less frequently a bony exostosis may encroach upon the chiasm. The complete recovery of this case with the use of anti-leutic treatment and the absence of x-ray changes in the region of the hypophysis with the restoration of normal vision, and normal visual fields, supported the diagnosis of a syphiloma or gumma of the pituitary area.

BIBLIOGRAPHY

1. Broussilovski, L.: Gumma of pituitary not revealed by clinical signs. Abstract J. A. M. A. (March 30, 1926.
2. Calhoun, F. P.: Ocular manifestations in a case of hypophyseal syphilis. Am. J. Ophth. (December), 1922.
3. Cushing: The pituitary body and its disorders.
4. Knapp: Ocular disturbances of hypophyseal disease. J. M., N. Y., 1913.
5. Nonay, T.: Neuritic atrophy of optic nerve and hypotonia from syphilitic tumor of hypophysis. Klin. Monatsbl. f. Augenh. (December), 1926.
6. Shubtazewski, F.: Pituitary syphilis: Syphilitic basilar meningitis adipose—genital syndrome with facial hypotrophy; atrophy of nervous origin and salivary glands. Rev. Neurol. (October), 1924.

SECONDARY SUPPURATIVE PAROTIDITIS*

R. F. WEYHER, M.D.†

DETROIT, MICHIGAN

Although cases of parotiditis which suppurate are rare, secondary inflammations of this gland are encountered frequently enough in practice and especially following surgical operations, to be of general interest. Primary or acute epidemic parotitis ("mumps") is not considered here.[6]

Hippocrates first recognized diseases of the parotid gland. Pliny recommended several remedies. Galen, Celsus, and Paul of Ægina make references to it. Virchow[16] made a scientific pathological description of secondary parotitis in 1860, and twenty-seven years later Stephen Paget[12] collected 101 cases. In 1886 Hanau,[7] after studying six cases, concluded that the parotid became infected through the ducts from bacteria in the mouth. Since then many theories have been advanced regarding the pathways of infection in parotid inflammation. At present two main groups of causes are generally recognized, namely: A. Hematogenous: (1) terminal; (2) after acute contagious diseases; (3) post-operative, as after cesarean section, appendectomy and pelvic surgery; (4) puerperal. B. Local: (1) oral sepsis through Stenson's duct; (2) pharyngitis and retro-pharyngitis; (3) otitis media; (4) traumatic, including pressure during anesthesia; (5) from an abscessed tooth, with or without extraction; (6) salivary stasis from atropin or lack of stimulation.

In group A, cases developing during debilitating illnesses are nearly always fatal. This case is grouped with those following acute contagious diseases. A much larger group is post-surgical. In 111 cases reported in the American literature in the past three years, 18 were post-infectious while 93 were post-operative or traumatic.

Rankin and Palmer[14] found the post-operative incidence about 1 in 3000, but in colon and rectal operations the incidence was 1 in 135 cases. This complication is not infrequent in tubal and ovarian surgery.

Davidson[5] reported a patient who had a cesarean section and then developed severe suppurative parotitis. Five years later she was seen when two months pregnant. He felt justified in performing prophylactic abortion, appendectomy, and the removal of an ovarian cyst, in the hope of preventing a recurrent parotitis. On the second post-operative day, however, the temperature rose to 103, and painful parotid swelling occurred. On the fifth day, incision produced a few drops of serosanguinous fluid. Uneventful recovery ensued.

In group B, the causes are varied. Layman[11] writes of a medical student who, while experimenting, pushed a shaving bristle up Stenson's duct. Six days later parotid swelling developed which closed the left eye and extended from the zygoma to the cricoid cartilage by the ninth day. The duct orifice dripped pus, which, upon culture, showed streptococci and staphylococci. By the tenth day, the bristle worked out and fluctuation occurred. Surgical drainage was followed by recovery.

A Chinese male of 26 had a discharging sinus in the cheek for 15 years.[10] At operation, the parotid contained an unerupted molar. This man had a post-operative salivary fistula and a four plus Wassermann. Five small doses of neosalvarsan, followed by fistulectomy, resulted in recovery.

It is possible that some cases classified in the hematogenous group are really caused by local trauma to the gland during anesthesia.

BACTERIOLOGY

Staphylococcus aureus is the most common agent. Streptococcus is frequent in virulent cases. The pneumococcus is rare but extremely serious.

An interesting experiment[2] was made on the parotids of dogs by injecting hemolytic staphylococcus aureus into both ducts and ligating the duct on one side. In practi-

*Presented at the Clinical Conference at Providence Hospital, March 21, 1933.

†Dr. Russell F. Weyher was graduated from the Detroit College of Medicine and Surgery in 1921, and served his internship in the Boston City Hospital. He was assistant Resident Physician at the Long Island Hospital in Boston in 1923. He completed a course of post-graduate studies in Vienna in 1931, and is secretary of the Oto-laryngological Staff at Providence Hospital.

cally all cases the sides with ligated ducts developed parotitis, while the injected non-ligated sides remained normal; whereas if the bacteria were injected into the parotid nutrient artery without duct ligation, only 50 per cent of the dogs developed parotitis. This indicates that the parotid is resistant to bacterial invasion only if there is no salivary stagnation, and that the infection is most apt to develop if it enters through the duct.

Charlton[4] says "every case of post-operative suppurative parotiditis is potentially lethal until proven benign" because "the death rate varies from 33 to 48 per cent. Jennings[9] analyzed thirteen cases with a corrected death rate of 24 per cent. The Mayo Clinic[14] reported fifty-eight cases with 40 per cent mortality. Of forty-six cases in six years in the three major Indianapolis hospitals, 24 per cent died. Of sixteen cases in six years in the Woman's Hospital in New York,[13] about 30 per cent died.

Treatments vary widely. Some authors recommend waiting until definite fluctuation occurs, while others such as Blair[3] and Charlton[4] advise early wide incision within forty-eight hours. The latter recommends hot moist packs and says "ultra violet light might be useful."

Frequently cold packs are recommended in the hope of preventing suppuration. Opiates must be given because of severe pain caused by tension in a relatively non-elastic capsule.

Desjardins[7] recommends radium therapy highly. He states it will often abort suppuration. In seventy-eight cases, of fifty-eight who had no radium, 40 per cent died, whereas in twenty cases treated with radium, a corrected mortality of 5 per cent occurred. Hobbs[8] and his associates describe a new treatment by dilatation of Stenson's duct with special probes and mercurochrome instillations. Their cases were either post-operative or post-influenzal. They conclude that if pus can be expressed from a reddened duct orifice, the case is much benefited. However, one case with a normal duct orifice was made worse by their treatment. Jennings[9] recommends iodine, ice compresses, and chewing gum, or lime lozenges. He forces fluids and drains only if pus forms. The case of a three year old child is reported by Bader[1] in which the suppuration ruptured spontaneously into the anterior auditory canal, with recovery.

The complications include abscess of the external auditory canal, or in the temporal fossa, meningitis, facial paralysis, infection of the internal jugular vein or the internal carotid artery, temporal neuralgia, and gangrene.

Oral hygiene in every case of severe illness would reduce the frequency of parotitis. Salivary stasis should be prevented by early mouth feeding or by giving the patient gum, or lime lozenges to suck. Rolleston and Olliver[15] show the importance of lack of salivary stimulation in discussing the medical treatment of 1,000 patients with gastric ulcer. In 530 cases where mouth feedings were prescribed, only 0.4 per cent developed parotitis, whereas in 470 cases who had no oral feeding, this complication occurred ten times as frequently. During anesthesia, the anesthetist should not injure the parotid regions by too much pressure in raising the lower jaw. Atropine should be used cautiously, and post-operative or febrile dehydration must be vigorously combated.

CASE REPORT

The patient, a white male of thirteen years, was first seen on Nov. 9, 1932. His past history included scarlet fever, varicella, measles and rubella. A tonsillectomy was done three years previously. The parents, three sisters, and two brothers are well. Patient had been losing weight gradually for several months. A week previously, he had "caught cold," and three days later, malaise, headache, sore throat, and a dry cough developed. He became very feverish, irrational, developed a stiff neck, and the previous day had vomited twice. He had not taken liquids nor food for one day, and no attention had been given to the mouth.

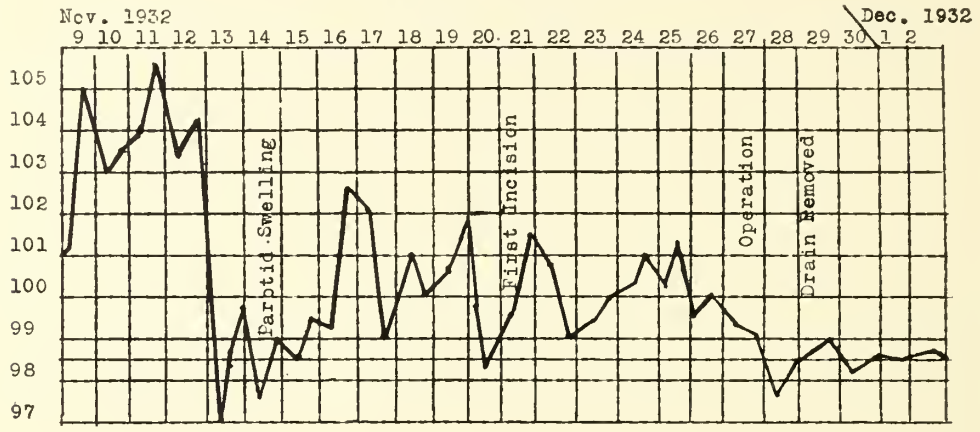
Examination showed a tall, thin, very ill boy, with a muttering delirium, white furred tongue, definite neck rigidity, cracked blistered lips, and a foul breath. Temperature, 101; pulse, 130; respiration, 38. An occasional fine dry râle was heard in the right scapular region. A lumbar puncture at Kiefer Hospital revealed a clear fluid with 24 lymphocytes, no evidence of organisms, 83 mgm. of sugar, and no globulin. A culture was sterile. The urine was clear, acid, S.G. 1024, Benedict's test negative, and albumin two plus. Pus cells and mucus were seen microscopically.

Next day patient was drowsy, irrational, neck rigidity was slightly improved, and many coarse râles were heard throughout the right lung, with high pitched voice sounds and bronchial breathing in the right mid chest. Kernig's sign, a tache cerebrale, and Oppenheim's sign were positive. The left patellar and Achilles reflexes were absent. A chest x-ray showed pneumonic consolidation in the whole right lung except for a small clear area in the right apex. The Hgb. was 70 per cent, R.B.C., 4,250,000; W.B.C., 22,200, with 86 per cent neutrophiles and 14 per cent lymphocytes.

Four days later, although the general condition was improved, edema and tenderness developed over the right parotid region, and the patient complained of severe pain in the cheek with inability to open the mouth fully. The right ear drum was

reddened. Three days later, November 18, marked edema of the right side of the face and neck were evident. The right eye was closed and the lobe of the right auricle was pushed upward and laterally. The lungs were practically clear except for suppressed breath sounds in the right mid lobe. A

TEMPERATURE CHART



right paracentesis was done but no pus obtained. The previous cold packs were changed to hot moist dressings. Next day, thick white pus was seen draining from Stenson's duct into the mouth. As the case was considered no longer infectious, it was sent home from Herman Kiefer Hospital with the following diagnoses: (1) lobar pneumonia, right toxic nephrosis, meningismus, (2) Complications: right otitis media, and right suppurative parotitis.

For the next two days hot moist packs were applied to the parotid. On the twenty-first, with local anesthesia, a small incision was made anterior to the mandibular articulation, through the parotid sheath, some thick firm grey round lumps of pus being evacuated. These were thought to be necrotic lobules of parotid tissue.

On November 25, marked swelling posterior to the right sterno-mastoid was observed. On admission to Providence Hospital that evening, the Hgb. was 65 per cent, R.B.C. 3,700,000, W.B.C. 29,200, with 84 per cent neutrophiles and 16 per cent lymphocytes. A smear of the pus exuding from the duct orifice showed Gram positive and negative bacilli, and Gram positive cocci, mostly streptococci. A culture of this pus showed streptococci in large numbers. Fluctuation occurred 48 hours later.

At operation, with nitrous oxide anesthesia, November 27, the original incision was widened, and a new one made over the fluctuating infra-auricular region which released several drams of rather thick yellow pus. A through-and-through rubber drain was inserted here, and a third very indurated area in the mid infra-mandibular region was probed, opened, and a second drain inserted. Hot moist compresses were applied post-operatively, 300 c.c. of intravenous glucose were given that afternoon, and codeine was administered prn.

Culture of the operative pus also showed streptococci. Next day the temperature was normal, and the patient could open his mouth more widely. A chest x-ray showed slight cloudiness over the right lower lung. All other areas were normal.

On November 29, the larger drain was removed, and two days later the second drain was taken out and the patient was sent home. By December 15, both incisions were healed and the patient was discharged.

CONCLUSIONS

In this case the cold applications probably delayed, but did not prevent, suppuration. It apparently was useless to drain surgically until the necrotic gland tissue had liquefied. The natural drainage of pus through Stenson's duct was entirely inadequate. Although the patient appeared very ill, the temperature in this case remained only moderately elevated.

A review of the literature for the past two years shows that the great majority of cases are either terminal, post-operative, or follow acute contagious diseases.

Although the primary illness in this case was lobar pneumonia, cultures from the duct orifice and from pus in the gland itself, both showed streptococci. This case was, therefore, probably ductogenous in origin; salivary stasis, dehydration, and oral sepsis favoring the transmission of streptococci through Stenson's duct into the parotid tissue.

922 MACCABEE BUILDING

BIBLIOGRAPHY

1. Bader, G. B.: J. A. M. A. (September), 1931, 97:929.
2. Berndt, Buck and Buxton: J. A. M. A. (November), 1931, 182:639.
3. Blair, V. D.: St. Louis Med. and Surg. Jour., 1917, 1:34.
4. Charlton, P. H.: Ann. Surg. (April), 1931, 837.
5. Davidson, H. S.: J. M. Soc., New Jersey, 28(2):85.
6. Editorial: J. A. M. A., 97:4, 325.
7. Hanau: Zeitschrift zur Path. Anat. u. Allgem. Path., 1886, 4:485.
8. Hobbs, W. H., et al: Surg., Gyn. and Obstet. (March), 1932, 54:555.
9. Jennings, F. D.: Amer. Jour. Surg. (June), 1930, 8:1201.
10. Kao, S. E.: China Med. Jour. (February), 1930, 44:95.
11. Layman, D.: Jour. Med. Assn. Ind., 24:465.
12. Paget, S.: Lancet, 1887, 1:314; Brit. Med. Jour., 1887, 1:613.
13. Pennel and Akana: Report of Woman's Hosp. of N. Y., 6:310.
14. Rankin, F. W., and Palmer: Annals of Surg. (December), 1930, 1007.
15. Rolleston and Olliver: Brit. Med. Jour., 1909, 1:1296.
16. Virchow: Alte Charite Annalen, Heft 8:31.

AN OBSERVATION ON A VERY COMMON CAUSE OF ALLERGY

I. I. BITTKER, M.D.†
DETROIT, MICHIGAN

How many of us have been faced with the problem of treating patients for an ever present cold, cough, sinus infection and all the other symptoms that the allergic individual is subject to. If these patients are children they are sent to the nose and throat specialist for removal of their tonsils and adenoids, their sinuses are treated and they continue to have their trouble. Even roentgenologists attempt to treat these cases with the usual poor results. Vaccines are then tried and as a last resort these children are tested out for sensitization to foods and other substances that they might come in contact with. The results of these skin tests may or may not show that these children are allergic, usually the tests are very misleading, depending on the condition of the patient. I think that altogether too much reliance is placed on the negative results of skin reactions against foreign proteins. Following the indifferent results after the interpretation of the skin tests and the subsequent treatment, we throw up our hands and tell the parents that the patient should be taken to a drier and warmer climate.

In the treatment of the allergic patient, a very definite and careful history must be taken. A record of everything that the patient eats must be kept, likewise a record of all things that the patient comes in contact with. In going into the history of the allergic child we find that without exception they have been given over a long period of time some form of cod liver oil or some form of malt preparation. Due to the fact that the allergic patient is generally underweight and is always subject to colds and other allergic symptoms, he is forced to continue taking these preparations and his colds, coughs and sinus infections get worse. The skin reactions might be negative or slightly positive to substances that the patient is extremely sensitive to, therefore we must rely on the record of things with which the patient comes in contact.

As mentioned the cod liver oil and the malt preparations are generally taken with the greatest regularity by all children and more especially by the allergic child. Even though the allergic child is not sensitive to the cod liver oil at the start, they in time develop a sensitization and go through the usual trouble of frequent colds, coughs, and an ever present sinus infection. If we can clear up a persistent sinus infection by the simple process of eliminating something in the diet of the patient, we are accomplishing something.

Working on the idea of eliminating a possible cause of the allergic symptoms, I took the substance that was being given to these patients with the greatest regularity. I found that amongst other foods the cod liver oil preparations were the most common, and I therefore stopped the use of these preparations on patients that showed the least tendency of being allergic, with results that were very gratifying. My series of cases has not been so large but the results have been so good that I thought it best to report them in order that others might observe cases of their own. I am reporting two cases which had given me considerable difficulty until the malt and cod liver oil preparations were eliminated from their diets.

CASE REPORTS

Case 1.—Jimmie B., aged eight, normal birth, was breast fed, and had colic up to four months. He had measles and chicken pox, and was given toxin antitoxin at seventeen months. He has had very frequent head colds and coughs, sinus infections since the age of five. Tonsil and adenoid operation at the age of six with drainage of sinuses at the same time; he has complained of abdominal pain after eating since he was able to talk (a very common allergic symptom). At the age of six shortly after his tonsillectomy he stepped on a rusty nail and was given tetanus antitoxin, with the result that he immediately went into shock and was ill for three weeks with serum sickness; he has always been constipated. He has had some form of cod liver oil practically all his life. Due to his constipation he was given a malt preparation for several weeks and following this developed a typical asthmatic attack. On being tested for the things to which he was allergic he showed a marked reaction to malt and a very slight reaction to house dust, fish and nuts. The malt, fish and nuts were eliminated from his diet with the exception of cod liver oil and his asthma stopped, but he showed no improvement so far as his sinusitis was concerned. During the latter part of last year he was given an autogenous vaccine and house dust serum and he showed some slight

†Dr. Bittker is a graduate of Detroit College of Medicine and Surgery, 1917. He is on the Medical Staff, Evangelical Deaconess Hospital, Detroit, and is Diagnostician of Contagious Diseases, Detroit Department of Health.

improvement but he continued to have his coughs and frequent colds. After rechecking his foods I decided that the possible cause of his trouble might be the cod liver oil that he had been taking all his life. Owing to the fact that he was sensitive to fish, although he had only a slight skin reaction to fish, I discontinued the use of all cod liver oil and malt preparations.

I might mention here that very often certain prepared cereals are flavored with malt. The result of eliminating cod liver oil was that he became free and remained free of all allergic symptoms for the last nine months, which was the longest time that he has gone without some cold or cough.

Case 2.—Martha H., aged five, was subject to frequent colds, sinusitis, coughs, and middle ear infections. She was essentially the same as Case 1. She was given vaccines, alpine light, and local treatments without results. Her tonsils and adenoids have not been removed. Inasmuch as an allergic family history was given, I eliminated cod liver oil from her diet, which she had received all her life. The results were that she promptly recovered.

CONCLUSIONS

In my opinion there are many symptoms that are due to allergic reactions to various substances, amongst these are constant nose and throat congestion, headaches, abdominal pains and various skin reactions. These conditions are often complicated by infection such as sinusitis and bronchial gland involvement. The cause of these allergic manifestations is always some substance that is being used by the individual regularly and thereby overloading his tolerance for that particular substance. In under-nourished and sickly children I know of no preparation that is used so constantly and regularly as the various cod liver oil and the various malt products and if they are the least bit inclined to be allergic they are by their constant use sensitized to them. I do not maintain that the use of these preparations should be stopped but I do think that the allergic child should be watched and if he shows the least sign of sensitization to any product that product should be stopped.

ACROMEGALY, COMPLICATED BY DIABETES

REPORT OF A CASE

AARON DUBNOVE, M.D.†
DETROIT, MICHIGAN

In reporting a typical case of acromegaly, I wish to call attention to the progress made in the treatment of this affection during the last decade.

The pathology of this condition was worked out and we have learned that it is more likely to be associated with either an increase of the number of eosinophils or an adenoma composed primarily of eosinophils, than with epithelioma, glioma, carcinoma or psammoma. We have also learned that x-rays depress the cellular activity of tumors composed of eosinophils.

Kontschalowski and Eisenstein of the Therapeutic Hospital Clinic and Roentgen Laboratory of the University of Moscow reported in 1922 a case of acromegaly successfully treated with x-ray. The patient, a woman of thirty-two, improved, her visual disturbances and severe headaches have left her, but the skeletal changes were not affected by the treatment.

Cushing has shown that about 20 per cent of the anterior lobe adenomata are cystic, and these will not respond to roentgen ray; that 80 per cent of them are solid tumors and that in these x-rays hold out a better hope of a lasting cure than surgery, for recurrences of the symptoms are quite common within two years after an operation on solid adenomata.

Bailey has reported a case of roentgen therapy succeeding when surgery has failed.

Allen and Lisser treated a case of eight years' standing and reported a definite improvement in her sugar tolerance.

Frazier advises a trial of irradiation, followed by operation if the result is not satisfactory; and routine post-operative irradiations.

Béclère has reported a case of a patient staying cured fourteen years.

Schenderow and Kopelmann reported eleven cases treated with x-ray in which the results were good and seven with satisfactory results. Other observers obtained similar results.

CASE REPORT

Bruce C., aged forty-one, white, Canadian farmer, has been subject to headaches for the last twenty-one years or so. At first they were not severe, but

†Dr. Aaron Dubnove is a graduate of the University of Manitoba, 1921; Intern Winnipeg Municipal Hospitals, Winnipeg, and St. Mary's Hospital, Detroit.

would last about half a day and wear off then. Colds made the headaches worse. About twelve years ago they began to gain in intensity; he then described them as sharp pains just above his ear and through his eyes. He became nervous, lost his appetite for some time and began to experience aches and some stiffness in his legs, arms and fingers. Then he noticed that his field of vision was getting somewhat narrower; he saw objects directly in front of him, but could not see "sideways." (It seemed to him as though he were looking through a narrow pipe.) Then the skeletal changes, so characteristic of this condition, began to make their appearance. His feet grew in size and he had to give up wearing size 10 shoes for size 12. He thinks his lower extremities grew in length, but as his height remained practically the same since 1916 when he was examined for the Canadian army, we have reason to doubt the accuracy of this observation (unless his kyphosis be held responsible for keeping his height constant in spite of an increase in the length of his lower extremities. Kyphosis is a marked feature of acromegaly). Other bones, namely his lower jaw, clavicle, ribs and bones of the upper extremity, became enlarged and more prominent. The same applies to the various joints.

In spite of the increase in the size of his lower jaw and the resultant wider separation of his teeth he had at times the sensation as if his mouth was getting too small for his tongue, for this latter organ participated in the hypertrophy.

He had no disturbances of the senses of either taste or smell. About eight years ago he was treated for a "spell" of mental disturbance lasting about two weeks. Since about 1926 he had "spells" of unconsciousness from time to time. Mild and infrequent at first, in time they gained both in frequency and severity. With the onset of the diabetes complication these spells of unconsciousness and headaches became less severe. How much the relief from headaches was due to the rather free use of opiates and how much of it was due to other factors is hard to decide at present. The patient seems to be sure of the fact that the intensity of his headaches varied inversely with the severity of the diabetes. About September, 1932, his headaches left him.

In November, 1932, he became impotent.

In January, 1933, he had an attack of dyspnea, precordial pain, swelling of his legs. These symptoms, with the exception of the dyspnea, improved before he left Canada. About the middle of February he came to Detroit, when he came under my care.

The physical findings were those typical of acromegaly and diabetes. There were also signs and symptoms due to the prolonged use of narcotics.

The laboratory findings were as follows:

The urine contained large amounts of sugar, acetone and diacetic acid. His blood sugar was quite high: 638 mgms. per 100 c.c., his Kahn test negative.

The x-ray findings were: (a) Marked thickening of all the bones throughout the cranial vault with accentuation of the occipital protuberance and supraorbital ridge; (b) increase in size of the pituitary fossa, depression of the floor of the sellæ, and crosion from within resulting in a definite thinning of the dorsum sellæ; (c) plaques of what appeared to be calcium in the dura near the midline in the parietal region.

Treatment: Opiates were discontinued. The patient was put on a diet of about 2,340 calories with insulin given in sufficient doses t.i.d. and, what is of greater importance, the patient was promptly referred for x-ray therapy.

Results, so far obtained: The patient regained his strength; he discontinued the use of narcotics. He is no longer suffering from constipation and piles, and gained about 26 pounds since the beginning of the treatment. His carbohydrate tolerance has improved as evidenced by the fact that his urine remained sugar-free after an increase in the food allowed him and a reduction of the dosage of insulin to less than one-seventh of the initial dose.

This patient is recovering and credit for this recovery is due the roentgen-ray therapy, which seems to be the method of choice in the treatment of pituitary tumors.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H.
LANSING, MICHIGAN

ARE COUNTY HEALTH DEPARTMENTS WORTH WHILE?

Recently an analysis was made of death and case rates for certain of the communicable diseases for urban and rural populations in Michigan during the year 1932. Rural population was divided into two parts, one with full-time county and district health officers in charge and the other with the township and village part-time health officer plan. The comparison between these two rural groups is strikingly significant.

Two diseases for which data have been compiled are typhoid fever and diphtheria. The death rate for typhoid fever in 1932 for the different population groups used in this analysis is as follows:

Detroit	.64
Cities from 20,000 to 200,000	1.25
Full-time rural health units	.70
Part-time rural health units	1.74

The diphtheria rate is equally significant. The rates are:

Detroit	4.14
Cities from 20,000 to 200,000	1.15
Full-time rural health units	.88
Part-time rural health units	1.44

It is well known that our large cities have been able more nearly to control typhoid fever than have any other units of population, likewise that our large cities have a more

difficult situation in dealing with diphtheria than do our rural areas. The important thing in these figures is the difference in favor of the full-time organized county health departments as contrasted to the districts which we may term "unorganized," which still continue under the old plan of part-time village, township and small city health officers.

Mortality rates for scarlet fever, measles and whooping cough do not show this difference favoring the full-time county health departments. In the control of these three diseases we have so far made little progress in our public health work. There is, however, a striking difference in the number of cases reported in the full-time county units for these three diseases, the rates in some cases being three times greater than those reported by the part-time groups. It is quite evident that this is the result of finding more cases and reporting them.

Perhaps the most significant figures of all are those of infant and maternal mortality, these rates being computed on the basis of deaths per 1,000 living births. These rates are as follows:

	Infant Mortality Rate	Maternal Mortality Rate
Detroit	52.0	6.9
Cities from 20,000 to 200,000	55.8	7.6
Full-time rural health units..	50.6	3.1
Part-time rural health units..	56.8	4.6

It appears that the work of our full-time rural health units may be quite favorably compared to that of our large cities and that it is far superior in results to that of the counties still using the old plan of part-time village, township and city health officers.

C. D. B.

THE GERMAN MEASLES OUTBREAK

The German measles (Rubella) outbreak in Michigan during the past several months has been unusual in a number of ways.

More cases of the disease have been reported than ever before in the history of the state. Local outbreaks first came to the attention of the Michigan Department of Health during the latter part of 1932. They have continued and increased in number and are still present in many sections of the state.

This widespread prevalence of German measles, coupled with an increased prevalence of scarlet fever, has resulted in confusion in diagnosis. In some places there has been difficulty in differentiating between German measles and measles. Fortunately the prevalence of measles (Rubeola) throughout the larger part of Michigan has not been so great this year as it was last except in the southeastern part of the state, particularly Detroit.

Not only has German measles been more prevalent than ever before, but the clinical behavior has seemed to be unusual. It is well known that the character of the eruption in German measles is variable, sometimes closely resembling that of scarlet fever, and at other times somewhat similar to that of measles, and at still other times so characteristic as to offer no difficulty in diagnosis. A number of health officers and physicians have reported cases with recurrent attacks or relapses in which the rash faded and all symptoms disappeared and after a period of from one to three weeks the rash again appeared, quite typical and with apparently no question as to diagnosis at either time. Not only has the rash reappeared a second time in several cases but in a few instances as many as three or four recurrences have been reported.

Another unusual symptom or complication that has been important is that of tremendous enlargement of the lymph nodes, there being a general adenitis of some lymph nodes with perhaps the cervical or axillary nodes swelling to the size of an orange. Although it appeared that these glands would break down, we have heard of no cases in which they did, and drainage has not been necessary with any of them.

Profuse desquamation has been reported in a number of apparently definitely diagnosed cases of German measles. This desquamation has been quite similar to that of scarlet fever, the epithelium coming off in large pieces from the palms of the hands and the soles of the feet.

The Michigan Department of Health would be glad to receive from physicians clinical case histories of the unusual cases coming to their attention.

C. D. B.

CHILD HYGIENE

Women's Classes are being conducted in Cass County by Dr. Ida Alexander with an enrollment of over 400 women each week in 14 centers. Dr. Edna Walck is conducting

similar classes in Manistee County, with a weekly attendance of over 350 in 14 centers.

Child Care Classes have been terminated in all counties with the exception of Alger and Schoolcraft, where they are still being conducted by Annette Fox, R.N. During the month of May, Child Care Classes were completed in the following counties: Berrien, Branch, Clinton, Jackson, Lapeer and Genesee.

The summer schedule, consisting of Infant and Preschool Child Welfare Programs, is well under way. Deane Rinck is carrying on such a program in Montcalm County; Julia Clock in Mason and Leelanau Counties; Nell Lemmer in Gratiot County; Caroline Hollenbeck in Livingston County; Margaret Bulkley in St. Clair County and Bertha Cooper in Branch County.

Martha Giltner is continuing her prenatal nursing program in Midland County. Since beginning the work there about the middle of January, 1933, Miss Giltner has had under observation over 200 prospective mothers.

L. R. S.

TOXICITY AND PHYSICAL PROPERTIES OF NEOARSPHENAMINE OF DIFFERENT MANUFACTURE

Jay F. Schamberg and John A. Kolmer, with the assistance of Mr. Bernard Madden, Philadelphia, believe that since neoarsphenamine is known to vary in antisyphilitic properties, it is highly desirable to have some reliable and practical laboratory test of curative activity in addition to the present standards controlling toxicity and physical properties. The maximum tolerated dose for white rats of eighteen different lots of neoarsphenamine prepared by seven different laboratories varied from 0.200 to 0.300 Gm. per kilogram of weight. Five, or approximately 28 per cent, had a maximum tolerated dose of about 0.200 Gm. per kilogram and were therefore below the minimum of 0.240 Gm. per kilogram required by the National Institute of Health. The average minimal trypanocidal dose of the eighteen lots was from 0.004 to 0.008 Gm. per kilogram of weight by the Kolmer method. Thirteen, or approximately 72 per cent, of the lots tested were completely and five, or approximately 28 per cent, incompletely trypanocidal in these amounts. The average minimal spirocheticidal dose for rabbits with acute syphilitic orchitis, including sterilization of the inguinal lymphatic glands, was about 0.020 Gm. per kilogram. Fourteen, or approximately 77 per cent, of the eighteen compounds tested were completely spirocheticidal in this dose, while six, or about 23 per cent, were not. The rate of healing of the testicular lesions and the disappearance of spirochetes were not acceptable criteria of the curative properties of neoarsphenamine. Lymph gland transfers from treated animals to fresh rabbits are required as criteria of cure. Wassermann tests of the blood with the serums of treated animals are probably not acceptable criteria of cure unless conducted over periods longer than three months. According to the authors' investigation, it would appear that the results of trypanocidal tests checked with the results of spirocheticidal tests with approximately 78 per cent of the eighteen lots of neoarsphenamine tested. By establishing a standard of minimal trypanocidal activity, the authors believe that it will be possible to detect quickly and cheaply lots of neoarsphenamine too far below the average in curative activity to warrant their use in the treatment of syphilis. By establishing 0.020 Gm. of neoarsphenamine per kilogram of weight as the minimal curative dose in acute syphilis of rabbits, it would appear practical and advisable to require laboratories engaged in the manufacture of neoarsphenamine to produce compounds possessing not only a minimum standard of trypanocidal activity but also this minimum of spirocheticidal activity. The authors suggest and urge the National Institute of Health to establish standards of these kinds similar to the official standards of toxicity and physical properties of neoarsphenamine already in force for many years, with praiseworthy results, to lessen the chances of incurring the regrettable error of treating syphilis with neoarsphenamine below the average in curative activity.—*Journal A. M. A.*

USE OF ACACIA IN TREATMENT OF EDEMA

Alexis F. Hartmann, Milton J. E. Senn, Martha V. Nelson and Anne M. Perley, St. Louis, call attention to the fact that the edema of severe cases of nephrosis may be controlled by the proper use of acacia, the theory being simply that the "colloidal osmotic pressure" or "oncotic pressure" of the plasma, reduced to the edema zone as a result of diminution in concentration of plasma protein, may be effectively restored by substituting the less permeant hydrophilic colloid acacia for the more permeant albumin fraction of the plasma. In order to be effective, enough acacia must be given to raise the "oncotic" pressure to beyond the edema zone and maintain it there. The "oncotic" or "colloidal osmotic" pressure of normal serum is found to be usually between 35 and 40 cm. of water, each 1 per cent of albumin contributing about 7.5 cm. of water pressure, and each 1 per cent of globulin about 1.95 centimeters. The serum oncotic pressure (calculated from the albumin-globulin concentrations) of the nephrosis cases observed by us ranged from 5 to 20 cm. of water while the edema was either increasing or stationary, the mean for the cases showing increasing edema being about 11 cm. of water, while the mean for cases showing stationary edema was 13 cm. On the other hand, cases showing spontaneous diuresis with loss of edema had values lying between 13 and 21 cm. of water, averaging 17 cm. From these figures it will be noted that the amount of oncotic pressure necessary to be supplied to establish diuresis varies from a fraction of 1 cm. to 15 cm. and averages 6 cm. Since acacia exerts approximately from 1.6 to 3.5 cm. pressure per grain per hundred cubic centimeters, it follows that, while a 2 per cent acacia concentration in the plasma should generally be effective, occasionally as much as 6 per cent or more may be required. Actual experience has proved that to be the case, and the authors' present method is first to administer acacia in an amount sufficient to add about 2 or 3 per cent to the entire plasma volume. If no diuresis occurs in twenty-four hours, the dose is repeated one or more times. Later, when the diuretic effect has ceased, owing to loss of acacia by excretion into the urine, it is repeated in the same dosage.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

JULY, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

THE ANNUAL MEETING

The next objective of the medical year is the annual meeting to be held in Grand Rapids on September twelfth, thirteenth and fourteenth. The annual meetings of the Michigan State Medical Society in the past have all been fairly well attended. They afford not only an opportunity for the annual exchange of ideas medical and surgical but are also an occasion for social contacts which would not perhaps otherwise take place. The getting together of physicians from all parts of the state plays no small part in the promotion of an *esprit de corps* of the profession. The presentation of scientific and clinical papers is an incentive to clear thinking and to the crystallization of our ideas and practices. The papers presented, both by members of our own society as well as by distinguished out-of-state clinicians, constitute a milestone in the progress of medicine and surgery.

Of course the House of Delegates will assemble in full force. The general administrative policies of the society are of their direction. The immediate executive function belongs to the council and president of the society. In past years the scientific program occupied the center of the stage at the annual meetings. So pressing have administrative problems become in recent years that the social phases of medicine have come to assume almost as great importance as the scientific. The summer months naturally produce a lull in medicine. Those living in towns and cities are on vacation and this period is a good time too for the doctor to rest from his labors, for a great many have been busy and would be in good circumstances were the remuneration on par with their professional activity.

However, keep the objective of the annual meeting well in the foreground. It is a splendid prelude to the coming fall and winter.

AN IMPORTANT COMMITTEE REPORT

The Report of the Committee on Survey of Medical Services and Health Agencies has appeared. This medical survey was authorized by the House of Delegates of the Michigan State Medical Society at the annual meeting in Pontiac in September, 1931. It therefore represents the result of over two years of fact-finding and study. Dr. Carl F. Moll, the president at the time, appointed a committee of six, with Dr. W. H. Marshall of Flint as chairman. These names consist of men most competent to undertake the task in hand. They are also geographically representative of the state. The work of the committee and sub-committees has been most thoroughly performed under the directorship of Dr. Nathan Sinai of Ann Arbor, than whom no more competent person could be found. Dr. Sinai came to the task after about four years' experience in fact-finding with the Committee on

the Cost of Medical Care, whose report was made known last November.

It is not our purpose at the present time to comment on this very interesting survey. A great deal of pains and a great deal of expense have gone into its compilation and it is hoped that it will receive the most careful study and judgment of the House of Delegates and other members of the Society as well. A special meeting of the House of Delegates has been called to meet at Lansing on Wednesday, July 12th, to receive this report and to consider means whereby the report may be studied further and to formulate recommendations for submission to and action by the House of Delegates at the September meeting. This report, it is needless to say, will be subject to frequent comment within the next year.

HEALTH INSURANCE

Elsewhere in this number of the JOURNAL appears a condensed report of a meeting held in Detroit in which was given a first hand account of the working of the health insurance plan in England. Dr. George McCleary who addressed the assemblage is the retiring Deputy Minister of Health for England. He had, he explained, reached the retiring age at which British public servants are relieved of their labors, namely sixty-five years. The impression gained by those present was that the method prevailing in England was a boon to the doctors, inasmuch as it gave them an assured income. So far, so good. We have entertained no opposition to so-called health insurance, but are against anything that interferes in any way with the autonomy of the medical profession, whose interests are so often jeopardized. We see objections, however, in our own state and nation that seem insurmountable. That, however, is no reason for refusing to consider it. Every locality possesses conditions peculiar to itself so that the smooth working or failure of health insurance should not dispose us to accept without question or reject *in toto* the experience of others. A workable insurance plan would be infinitely more desirable than free clinics in which the doctor's time and skill are exploited, and the vast accumulation of unpaid bills. The matter of medical services and health agencies has been gone into very thoroughly by the special committee appointed for the purpose and we hope that out of it all will be evolved some plan for the betterment of both the profession and laity in this state.

SERENDIPITY

When Dr. W. B. Cannon, professor of physiology of Harvard University, was in Detroit a few months ago to deliver the Beaumont Foundation lectures which have appeared in this JOURNAL, he addressed the faculty and student body of the Detroit College of Medicine. In the course of his remarks he made use of the word *serendipity*, which of course was new to everyone. Sir Robert Walpole, English statesman of the eighteenth century, felt the need of a new word in the English language and suggested the title of this editorial. Serendib was the ancient name of the Island of Ceylon. Serendib, so tradition goes, contained three princes who travelled about the world making accidental discoveries; that is, they set out with a more or less definite purpose but discovered something of great importance which they had not anticipated. *Serendipity* is the word suggested by Sir Robert Walpole to designate this peculiar experience.

A number of instances will come to the mind of the reader. Columbus set out from Spain to find a shorter and more direct route to India. He discovered a new hemisphere. The crusaders set out to rescue the tomb of the Savior from the pagans of the middle ages. They failed, but brought back to Europe knowledge that has since revolutionized the western world, namely, of the mariner's compass, gunpowder and movable types.

In the realm of science William Konrad Roentgen, physicist, was experimenting with vacuum tubes by passing electric currents through them. The discovery of the x-rays was the result. Every one knows the story. Sir William Crookes, Leonard and Geissler had experimented with vacuum tubes but had got no further than the discovery of cathode rays (Crookes). Another example is in conneciton with Pasteur's research which led to immunization against such diseases as rabies and diphtheria. Pasteur, we are told, had been working with the chicken cholera germ, in a serum so virulent that even a small quantity of it was rapidly fatal to laboratory animals. Leaving on a vacation, he instructed an assistant to care

for the serum. Through neglect the assistant failed to carry out his master's instructions. When Pasteur returned the serum was found to contain live germs but so lacking in potency that it was harmless. *Serendipity* then appears to be a characteristic of the true scientist. He labors, ever watchful of possible discoveries in the by-paths of his research.

OOR GUID AULD U. S. A.

Ah am singin' o' a countrae, that is mine, by ma ain choice,
It's th' verra place ah live in, an' am gled ah can rejoice
In th' preeious birth o' freedom, 'tis nae license tae be bad,
Bit a chance tae show ambition, an' what's in ye frae yer dad.

Ah am won'drin' an' complainin', 'boot this communistic thing,
An' th' politicians jingle, an' th' aw'fu' sangs they sing
An' the crookedness o' some folk, an' th' countrae goin' bad,
Bit, there's chances for advancin', wi' what's in ye frae yer dad.

Ah ken ye meet depressin' times, an' yer some days aw'fu' sair,
'Boot th' humdrum o' th' cities, an' th' politicians blare,
Bit yer enterprisin' spirits, an' th' cheer frae ither lads,
Mak's ye show th' stuff yer made o,' an' what's in ye frae yer dads.

WEELUM.

HEALTH INSURANCE IN ENGLAND

Dr. J. M. Robb, president of the Michigan State Medical Society, presided at a luncheon in honor of Dr. G. F. McLeary, of London, England, on Saturday, June 10th, at the Wayne County Medical Society Club Rooms. Among those present were: Dr. McCleary, Dr. H. A. Luce, Dr. Angus McLean, Dr. Baker, of Pontiac, Dr. Basil Connelly, Dr. J. D. Bruce, Ann Arbor, Dr. Michael Davis, Chicago, Dr. Wm. J. Stapleton, Dr. Ledro Geib, Dr. Henry Vaughn, Dr. John Sundwald, Ann Arbor, Dr. E. C. Baumgarten, Dr. W. S. Reveno, Dr. Arthur McGraw, Dr. A. H. Whittaker, and Dr. J. H. Dempster. Dr. H. A. Luce acted as chairman in the absence of Dr. Robb.

Dr. McCleary has been for a number of years Deputy Minister of Health of England. He is on the return journey and voyage to England from a voyage around the world. The subject of his talk at the luncheon was "Health Insurance As It Obtains in Great Britain." The English scheme as inaugurated in 1912 was based, he said, upon the German, after a critical study had been made of the German system of Health insurance, which had its beginning in 1884. The German system was found to have a number of objectionable features. By 1911 the British Medical Association was in a favorable position to exercise influence with the British government in securing conditions favorable to the interests of the medical profession. An exhaustive study of the various factors concerning healing practices had been made and in 1905 a report had been published that contained invaluable findings. The subject of contract practice had been thoroughly investigated, weighed in the balance and for the most part found wanting. The report gave a complete account of contract practice as it prevailed before the insurance act, which came later. Contract practice was made a source of profit in which the medical profession was exploited. It became eventually so unpopular with organized medicine that it was difficult to obtain physicians to submit themselves to contract practice as it was carried out at that time.

Then came the collier system, whereby colliers set aside certain sums each week to care for themselves and families in the event of illness. There were also Friendly societies or lodges, all, however, under non-medical management and therefore unsatisfactory to the medical profession. Besides these there were private medical clubs controlled by physicians themselves, whereby patients by paying a penny a week might obtain medical care when necessary. Of course some canvassing was done by physicians or their agents, which feature was also somewhat unethical. From this latter movement, however, evolved a scheme under which persons of moderate means might obtain medical services from local medical societies, which included payment on a weekly capitation basis. This plan had feautres which were afterwards embodied into the National insurance scheme, namely, free choice of physician on the part of patients; it was open only to patients of certain small incomes and to all physicians who signify their willingness to participate.

For large portions of England some form of contract service was necessary; the alternative was simply free treatment on the part of physicians. The conclusion of the British Medical Association was that all forms of contract practice had some objectionable features.

The present insurance scheme was introduced in 1911 and became law a year later. It limited medical service to qualified medical practitioners. The irregulars were barred. The British Medical Association did not object to compulsory health insurance but demanded that certain conditions must be fulfilled. Among them the scheme must be open to all physicians who might wish to enter it; they must elect themselves and not be appointed by the government; the insured person must have the right to choose his own physician. In other words, service under the new plan must resemble private practice as much as possible. Physicians must not be placed under or controlled by any insurance society. In each insurance area must be a committee representative of the whole medical profession. A final condition was to the effect that physicians should receive adequate remuneration, though it was not defined as to what was meant by "adequate remuneration." All these provisions were accepted by the government except the income limit. The conditions of insurance did not, the speaker said, include wives or families; it was limited only to the insured persons.

Dr. McCleary went on to say that it is a very important thing on the part of the medical profession to know definitely what they want and of equal importance to have wise leaders.

The rest of the discussion was of the round table variety.

Asked what change the speaker would make in the present insurance plan had he the power, he replied:

"The English system is deficient to the extent that it does not apply to dependents. It does not provide for hospitalization nor for the expenses of operations. In this it differs from the German system, which supplies complete medical service."

"Has it been possible to separate cash benefits from sick benefits?" the speaker was asked.

"Yes," he replied, "the tendency is to stress medical treatment rather than payment for loss of work. Medical treatment is administered by a special committee; cash benefits by an entirely separate one. The two have no relation to each other."

In answer to the query as to whether the economic condition of the doctor were improved under the insurance plan, Dr. McCleary said it was decidedly so. The average number of insured persons per physician was one thousand. On this basis it meant an assured income of 450£ (about $2,250), but a great many had their private practice besides. The check for 450£ with the authority of the British government behind it was much to be desired, since that of itself placed the doctor in a position of economic security. The profession has advised the extension of the plan so as to include the families of insured persons.

Asked as to how the funds were raised to provide the payment for medical service, the speaker said that the insured worker paid forty per cent, the employer forty per cent, and the state twenty per cent. This included more than one might be aware, inasmuch as in England domestic servants and agricultural laborers were also beneficiaries, on whom health insurance is obligatory.

Replying to a question how the insurance plan affected persons on the dole, the speaker said that only healthy men were on the dole. When sick they were not on the dole.

Does the physician who works on a salary basis give his patients proper care? Has he an incentive to self improvement?

"As a rule yes, to both questions. The patient, I have said, has free choice of physician. If the physician neglects his professional duties or permits himself to slip in the matter of keeping up with medical advance, he individually loses his practice."

Questioned in regard to the clerical routine involved in panel practice, the speaker showed two or three simple blank forms for case records which were not so intricate or involved as the records of any conscientious physician would adopt in his private practice.

Pharmacists, it was explained, were powerful enough with the government to have a law enacted compelling the prescribing instead of the dispensing of medicines.

WILL POWER

Dr. Emil Amberg (in *The Rainbow*)

Lip reading tests prove what can be achieved by will power and perseverance. Not only the perfection in reading lips, but also the excellency of speech elicits our admiration. Those who are not initiated into the secrets of lip reading have little conception of the difficulties which are encountered, and of the untiring efforts which are necessary in order to reach the necessary results. The deafened have good reason to be proud of the results obtained. The well hearing people who are favored by nature take good hearing and good speech for granted. The deafened, on the other hand, who have worked hard to keep alive their contact with the hearing world by the aid of lip reading and understandable speech, know very well that this circumstance is the fruit of long and tedious application of attention and concentration. A pianist of world renown is reported to have stated that the public notices when he had not practiced three days, his friends when he did not practice two days, and he himself when he did not practice one day. The crown of achievement is not placed on the heads of the deafened by others, but by their own hard work, aided by competent and persevering teachers. But, it is worth while to work on and on. The greater the endeavor, the greater the glory of satisfaction. Those who have received prizes for their work must be congratulated mainly on the example which they have furnished to others. They stimulate the interest in lip reading and help, in this manner, to add to the sum total of human achievement and human happiness.

NECESSITIES AND LUXURIES

(*New York State Journal of Medicine*)

There are necessities in the care of the sick, and there are luxuries. It is the object of medical relief to the poor to supply the medical care that is necessary, and to omit the luxuries. The tendency of the people in the care of their sick is to spend money on luxuries, thinking that they are essential to recovery. The doctor does not object to luxuries in moderation, but he does object when the bill is greater than that for medical necessities. The doctor is willing to make liberal contributions of necessary medical service to the sick poor; but he is dissatisfied when families, friends and social workers bestow luxuries on the sick whom he treats at reduced rates. The florist, the taxi driver, and the special nurse all receive their pay before the doctor is remembered. The doctor would be gratified if every dollar paid for luxuries were duplicated with an extra dollar to him for the necessities of medical service.

CHARITY TO THE TAXPAYER, NOT TO THE INDIGENT

(*New York State Journal of Medicine*)

Physicians now have an unprecedented opportunity to develop a practical system of medical economics; in fact it is forced upon them by statutes of New York State. Both law and the decisions of the courts have recognized four necessities of life—food, clothing, shelter, and health. The first three can be produced and distributed by amateurs; but health service and medical treatment can be given by physicians only.

The State has assumed the burden of supplying medical service to the destitute; but the State must purchase it from those who have it to sell. The doctor who *donates* his services to the destitute, makes a gift to the taxpayers rather than to the poor. It is for the doctors to agree with the government officials as to what shall be a fair price for their services to the destitute. The doctors will be generous, and the State just and fair.

"In times like these, we find ourselves in the midst of a serious financial and industrial crisis. It just seems inconceivable that conditions can ever right themselves enough to have prosperous times in the country again. Trade and industry throughout the land are disorganized. Banks by the hundreds have failed. Securities have fallen to one-half or even one-quarter of their former value. The problem of unemployment has become general and in all large cities special committees have been organized to provide food and clothing for the poor and unemployed. In addition to this effort, some cities have caused relief work to be instigated by public bodies. Extensive competition, lowering prices and unwise speculation have brought about a crisis abounding in rumor reports, most of which have no foundation and do great damage. The renewal of confidence and the allaying of violent fear in the minds of the people, which will allow for active buying, rather than money hoarded, must precede business recovery."

From a speech made by Daniel Webster to 1500 citizens in Detroit in July, 1837, quoted in the *Detroit Educational Bulletin.*

MEDICAL ECONOMICS

MEDICINE'S WAY FORWARD*

J. C. S. BATTLEY, M.D.
PORT HURON, MICHIGAN

I

While it is apparent that the present unsettled and trying conditions of society in general and of many occupations in particular have for their background the changes wrought in our civilization by the Industrial Revolution, our position in regard to its influence is often not clearly understood. A convenient point of departure for a consideration of this problem is a paragraph in J. L. and B. Hammond's "The Rise of Modern Industry."

> When Rome seized the treasures of the East, the temptations of the plunder overwhelmed the virtue and simplicity of this small and hardy people, and threw, first the Roman people, and then the growing world that they controlled, into confusion and civil war. Yet Rome has gone down to history as a noble example of the power of man to create a civilization, for the pirate Empire became the law-giving Empire, the great brigand the great statesman. The tide turned with Augustus, and so far as the recovery has a philosophy, the solemn and urgent note of obligation was sounded by Cicero in a hook that served for centuries as a sermon to mankind.

The authors have drawn a picture of a condition in ancient society which has a counterpart in modern times. Since society revolved about the feudal manor of the Middle Ages and the peasant village was the social unit, a great change has come over the scene. The discovery of America and opening of the Atlantic trade routes and the inception of the use of machinery in manufacturing, which marked the beginning of the Industrial Revolution in the late eighteenth and early nineteenth centuries, sounded the knell of the feudal economy. The self-sufficient society that surrounded the lord of the manor owing him fealty and in return receiving his protection has given place to a world in which men live individualistic lives and work for a wage. While a feudal manor was self-supporting in all its various wants, a modern town would starve in a short time if its supplies were to be cut off. We are dependent on all sorts of conditions which have been built up by machine manufacture, transportation, and modern finance. We live a highly and subtly integrated life, each member dependent upon each other as never before, and each town and city dependent for its very existence on the normal functioning of every other. We have an abundance of goods and a degree of comfort never before dreamed of. It would seem that mankind has advanced far from the time when the Roman legions marched along the highways of the ancient world.

But there is another side to the picture. The story of the rise of modern industry is not a happy one. The opening of new lands for colonization and the markets made available thereby led to a scramble among the nations for commercial supremacy. Not only was it a scramble but a dire and bloody struggle equalling, if not surpassing, the worst barbarism of any previous period in history. Early commerce with the Americas was one of pitiless pillage and plunder. A slave trade worse than any seen in the Roman world developed between Africa and America in which all nations, and principally the English, became engaged. There was some reason for the use of slaves among the Romans for they were captured in war. The African slave was a mere piece of property, seized by fire and sword from his native village, cast into the hold of a slave ship, and taken to the new world to make profit for his master.

The shadow of the slave trade spread far beyond the American continents. There is no difference in principle between the use of slaves on American plantations and in American mines and the terrible conditions surrounding the use of men during the early industrial era in the cotton mills of Lancashire and the coal and iron fields of South Wales. These men were looked upon as little more than beasts fit for driving the wheels of industry to make profit for their masters. There is no more terrible chapter in the history of industry than that of the employment of little children, seven and eight years of age, often torn from their parents and transported to the cotton manufacturing areas, there to work twelve or more hours daily in what William Blake called "these dark Satanic mills."

It became the philosophy of the time that it was right and proper for a man to make what profit he could in any way he could. To use one's fellow man, no matter how barbarously, in order to create wealth was to serve his best end. It was the temper of the times and brought no more reaction than do situations now which, one hundred years hence, will be looked back upon with horror. Reform was for a long time impossible. Slowly it came. Gradually the belief in the right of the individual has taken hold. Today the life of the laboring man is a paradise compared with what it was in the early nineteenth century. He has come to be a citizen equal in rights with any other citizen. He can live in comfort and happiness. We have even reached the point where large industries are not owned by single individuals but by stockholders who are often the workers themselves. It is true that much of the independence of the guild worker and the craftsman has gone but so have plague and witchcraft and superstition and, though the goal is not yet gained, the banishment of poverty seems possible.

Yet the tragic shadow of the early years hangs over us. The tokens of our times are factories and mills, their tall chimneys belching murky smoke through which the dim face of the sun peers fitfully, and their forges and furnaces burning athwart the night paling the pure radiance of the stars. The divine right of making profit is still our creed. Sweat shops and child labor still raise their ugly heads. The jealousies and discords of the industrial age brought upon us the recent war with its aftermath of suffering and revolution. Now an unprecedented depression born of the fear of war, in which trade has shrunk to unbelievably low levels, discord among the nations has arisen, famine has stalked through the land, financial institutions have tottered, and utter ruin threatens, has brought the world to the place where the Roman Empire stood when Augustus came to power and Cicero wrote the De Officiis.

II

Through this story of sunshine and shade many bright lines run. The growth of the humanities, art, music, and literature gave beauty to life. The influence of the Christian religion brought comfort and hope and inspired men to build the mightiest cathe-

*In regard to the contribution by Dr. Battley to this department which appeared in the May Journal, a prominent member of the profession writes us: "I can't place J. C. S. Battley, 'The New Deal in Medicine,' in the May Journal. The best bit of writing I've seen in any medical journal in a long time—perhaps never anything better in our Journal from a literary standpoint. I like his style and appreciate his background." It is needless to say that we endorse the sentiment one hundred per cent and are pleased to have the opportunity of printing the above contribution. Dr. Battley is a pediatrician, a graduate of Toronto Medical School, Toronto, Canada. He is practising in Port Huron.—The Editor.

drals the world has known. Science emerged from the Cimmerian gloom of the Dark Ages and disclosed the germ of future achievement. Through the ages the story of medicine runs like a golden thread. From the time of Chaucer's Doctour of Phisyk with his astrology and magic we have steadily progressed to the scientific medicine of our own day. No other calling presents such a galaxy of brilliant men. No men in history have done more for mankind than Vesalius, Harvey, and Pasteur. From the time when every family expected to lose several of its members before they grew up, and indeed, in which often only one or two out of ten or twelve survived, we have come to the time when the death of a child is an exceptional event. Telling evidence of the rôle of medicine is given by the London Bills of Mortality. In 1730 75 per cent of children under five years of age died, in 1770 51 per cent, in 1810 31 per cent, and in 1915 14 per cent.

Medicine has a further claim to greatness. Through the ups and downs of history, through war and peace, depression and prosperity, it has pursued an ever upward course. Our position today is signal proof of this. Though business has gone to pieces, trade has diminished, and the world is in turmoil, the health of the nation was never better. Medicine has carried on in spite of the collapse of many institutions about it and even has advanced while others have retreated.

The reason for this success is not far to seek. Medicine is a profession rendering services, not a business seeking profits. Its disinterested aim is the welfare of mankind. It knows not national lines and its members are citizens of the world. We are heirs to the inspiring traditions of a long line of illustrious men. Physicians are independent individuals dealing directly with patients without intermediary control. The conditions under which physicians labor have been gained by years of effort and coöperation in which self has been effaced for the common good. In these present days of expanding commercial interests in which socialized activity is more and more making its appearance, we are being asked to give up our independent character and to allow lay intermediaries or middlemen, and perhaps the state itself, to step in and direct our enterprise. We are called upon to decide whether we shall hitch our wagon to the state with all its pitfalls of political control, or whether we shall continue to go our independent way trusting to the stars which so long have led us.

III

While the medical profession as a whole appears to be outspokenly against the socialization of medical practice, it is important that we possess a clear conception of the problem, for only in this way can we perceive its implications. There is a confusion in many minds between socialization and socialism. Socialism, which is a political doctrine, does not enter our present problem. According to its leading exponent in America, Mr. Norman Thomas, it "believes in the public or social ownership and control of land, natural resources and the principal means of production and the distribution of goods." Possibly along with this would go the social administration of professional services. The likelihood of a socialistic government, however, does not appear sufficiently imminent to make it necessary for us to consider medical problems in this light at the present time. Socialization means administration by the group, a collective way of doing things rather than an individualistic way. Socialization is finding a distinct place in our capitalistic world.

The trend of the last hundred years has been toward the importance of the group over the individual. There is no antithesis between these. They are merely different ways of looking at the total human reality. The growing power of the lower houses of parliaments and the increasing part that the state is playing in affairs shows a trend toward socialization. We know of many private enterprises which never could have been consummated by individual effort. This ceases at a point after which coöperative effort, or socialization, must appear if progress is to be made.

Medicine is already socialized in many respects, such as organization of hospitals, the public health service, community efforts at the prevention of disease, and medical organization as embodied in the state societies and the American Medical Association. Why, then, is there an outcry against the socialization of medicine as advocated in the majority report of the Committee on the Costs of Medical Care? We must differentiate, I take it, between what socialization we have, gradually organized and applied, successful here and continued, unsuccessful there and withdrawn, and an attempt to completely and finally socialize medicine by making a move greater than any hitherto thought of. Such a move would be fraught with the greatest danger because, once started, there could be no turning back. If it did not succeed as proposed the state would certainly assume complete control and the identity and independence of a group which always has been a bulwark of the republic would be lost. It is conceivable that some day we may have a completely socialized medicine. Yet this concept would not necessarily imply state control. In the continually unsettled state of society it would seem the part of wisdom to allow trends toward further socialization to appear bit by bit, by trial and error, rather than risk all at one fell swoop. The equitable regard of the interest of physicians requires that changes of this kind should never be introduced suddenly, but slowly, gradually, and after long warning.

We must, nevertheless, concede much credit to economists and social scientists who have given intensive study to social problems of which medicine is one. If they do not see eye to eye with us, it is not that they wish in any way to impose an outside control over us, but that they believe a marked advance toward socialization is desirable and inevitable. While our conception of the place of our profession in the social economy and the manner in which it is best administered is recognized by every physician to be a culmination of centuries of experience and has become a commonplace among us, it by no means has become so among lay persons. "No conception can be understood," said Auguste Comte, "except through its history." One must be a physician to appreciate the medical viewpoint. This is not at all an assumption of greater powers of discernment on the part of physicians, but simply a matter of fact. It is this lack of appreciation which makes it difficult for laymen to grasp the problems that beset us.

One of the provinces of the social scientist is to give opinions based on careful study on the things which it will be best for society to do. Predictions of what should happen in the social body are, however, notoriously uncertain and cannot be made with the precision with which the existence of new elements have been predicted. Man acts capriciously, not according to fixed laws. Who, for instance, could have foretold the sudden rise in popularity of jig-saw puzzles? In more serious aspects of human behavior the same uncertainty exists. The social problems of medicine in particular are things difficult of solution, little given to scientific treatment, and part of the intricate and often baffling web of human relationships. A social scientist of my acquaintance intimated to me that medicine might con-

cievably become a public utility. This view, to say the least, appears a little hurried when one remembers that medicine was hoary with age when social science was in swaddling clothes. There does seem a necessity of placing in a different category services such as medicine renders and commodities such as gas and electricity. Again there may be those who feel that medicine, penetrating, as it does, every stratum of society, may be used as an entering wedge to introduce political doctrine. The only answer to this argument is that medicine is in no way concerned with systems of society. Its austere duty is simply to help the sick, that and none other.

The sudden application of revolutionary ideas is always accompanied by disturbances. Tennyson recognized this when he wrote,

> A saying, hard to shape in act:
> For all the past of time reveals
> A bridal dawn of thunder-peals,
> Whenever Thought hath wedded Fact.

And as surely he recognized that the best and permanent results are obtained by slow and steady progress.

> Where faction seldom gathers head,
> But by degrees to fullness wrought
> The strength of some diffusive thought
> Hath time and space to work and spread.

IV

Another important consideration is the effect of a system of completely socialized medicine on the physician and his task. Physicians have always been individualists. Even when working in groups their individuality constantly asserts itself. The collapse of many clinics testifies to this. In order that the medical life may come to fruition there must be an equality of opportunity and a maintenance of initiative. These cardinal points are essential for its functioning. There are wrapped up with the individualistic attitude. To bury them, as they would almost surely be buried were state medicine with inevitable political features to be thrust upon us, would irreparably damage medicine. Medicine must not lose the impress of individual personalities. A formalized, mechanized, institutionalized medicine would be a dead medicine.

Mr. Herbert Hoover has dealt with the subject of individualism in an able and searching manner in his essay, "American Individualism." He says, "The basis of our civilization is still the individual and the self interest of the individual, however much this may seem to be modified by the development of socialistic institutions." One might quote at length from the well argued pages of our distinguished contemporary. "Our individualism is rooted in our very nature." "But those are utterly wrong who say that individualism has as its only end the acquisition and preservation of private property—the selfish snatching and hoarding of the common product. Our American individualism, indeed, is only in part an economic creed. It aims to provide opportunity for self expression not merely economically, but spiritually as well." "What we need to-day is steady devotion to a better, brighter, broader individualism that carries increasing responsibility and service to our fellows." Mr. Hoover does not mean that collective and socialized effort is not desirable but he does insist that within these efforts the individual, his personality, his ability, and his ambition shall have such scope that he may feel that he is not just part of a machine but is, indeed, the very hand that guides it.

To remain a free profession, free to develop our individualistic propensities, untrammeled by lay and political control, unhampered by influences that take little heed of the peculiar requirements of medical practice, are the only conditions under which we can hope to justify the faith of humanity in us. Freedom is essential for greatness. Swinburne had the vision, as poets so frequently have, when he wrote,

> Freedom alone is the salt and the spirit that gives
> Life, and without her is nothing that verily lives.

V

We may have maintained our argument thus far to our satisfaction but we shall be hiding our heads in the sand if we do not realize that the demand for some change in medical practice is based on dissatisfaction with certain details of the present system. It is true that many human institutions are at the present time are under fire and that dissatisfaction with medical affairs is part of the general tendency. The thought also must be borne in mind that the restless manifestations of the present age are but symptoms of an underlying weakness, the correction of which will clear away the symptoms. These considerations should not deter us, however, from making specific inquiries in our own case.

In the January, 1933, number of the *Atlantic Monthly,* Mr. William Trufant Foster has published an article entitled "Dollars, Doctors, and Disease." Mr. Foster was one of the original group which organized the Committee on the Costs of Medical Care. His article is written for lay readers and explains what the writer considers to be the difficulties of medical practice and how the majority report proposes to remedy these. Mr. Foster gives great credit to the strides that medicine has made but he is outspokenly critical of the present technique of practice. He says:

> The market for that [medical care] is unique. The demand is for a necessity; failure in supply often means death: yet the patient who buys medical care in the open market runs serious risks. It does not come in standardized packages; there is no simple test of worth which the buyer can apply. As a result, medical care is now bought with little knowledge of its quality—often, too, with little knowledge of its price. The patient commits himself to an unknown course, in which one bill may merely breed others. The price does not behave the way prices behave in textbooks on economics.
>
> Worse still, under the present "fee-for-service" basis of private practice the patient may fall into the hands of fee-splitting doctors, and thus be misled when he thinks he is getting honest advice. The objections to fee-splitting are that physicians thereby gain income without regard to their qualifications; patients are diverted by misinformation from the best specialists; the fee is usually exorbitant; men who thus buy and sell patients often perform unnecessary operations; and the fee-splitting surgeon is surrounded by paid solicitors, all greedy for money profit. The committee declares that fee-splitting "increases the cost of professional care, degrades the profession, and, in effect, puts the patient in the hands of the highest bidder."
>
> What every sick patient needs, evidently, is a single agency, in one place, freed from every taint of commercialism, which will furnish him all the necessary information.

Our first reaction to this accusation of crass commercialism will be one of indignant denial; a better attitude will be an humble desire to investigate the charges, to determine to what extent the canker of commercialism has appeared, and to restore confidence by eradicating it. There is no doubt that the practice of medicine has been affected—or shall we say infected—by business methods. Every activity of man has been so affected. As a corollary to this it seems true that if medicine is conducted as a business, competitive business methods must be used. It would, therefore, be quite logical for a physician to call a consultant from a place far distant in order not to risk his patient being taken over by a local competitor. If a doctor is to compete with his neighbor he cannot afford to send patients to him because in the future the patients may stay with the

new man. It is true that if one man refers a patient to another the latter can reciprocate. He can, indeed, but, guided by the idea of profits, he likely will not. Profits must came first, patients second. But this is idle talk. Business could with much propriety adopt the service principles of medicine rather than medicine become a business. It must be obvious to all of us, nevertheless, that only when cooperation with its attendant benefits to every one concerned becomes the rule, and competition, other than that of professional ability, disappears, can we hope to have a desirable consummation to medical practice. Medicine exists to serve, not to seek.

This essay cannot be more fittingly closed than by again referring, for whatever good it may hold for our modern age, to the great sermon with which Cicero aroused the ancient world. I cannot give it better than in the words of the Hammonds.

> This plea was addressed to a people whose whole life had been thrown into disorder. All the settled customs that control man and keep his feet on some traditional basis of virtue had vanished in violent strife and civil war. In such a society everything depends on the sense of honor, or of shame, or of pity, or whatever that emotion or principle is called, which prompts a man to be better than his circumstances and surroundings compel him to be. Cicero appealed to such a sentiment of honor; in battle it was no defense of cruelty that the state with which you were contending was your enemy; in commerce it was no defense of sharp practice that you had kept within the law. In business relations, concealment or misrepresentation, or taking advantage of your neighbor's ignorance, were wrong; the doctrine that selfishness was public spirit, because private fortunes were the wealth of the state, was dangerous and misleading. . . . The greatest master of the Roman language recalled to the people, into whose hands the world had fallen, the teaching of the Greeks, that the difference between the right and wrong use of power, between the use that regarded and the use that respected the claims of others, was the difference between civilization and barbarism.

We have been living in an interregnum for the past three centuries. Behind us are the Middle Ages when the great sanctions of the church claimed the loyalty of men in every path of life. Still far in the future is the time when the obligations of social welfare will be the criterion of all action. Today an acquisitive capitalism sits in the saddle, albeit uneasily. The world stands quivering on the threshold of new and potent possibilities. We must take care that the sinews of medicine are not cut by an unwise alliance with capitalistic or political powers, but remain free and strong for the day when medicine will play an even greater part in human welfare.

CORRESPONDENCE

RINGWORM OF THE HANDS AND FEET

Editor of the Journal: I have just read an article on ringworm of the hands and feet in the current issue of the excellent Journal of the Michigan State Medical Society. I cannot help but call attention to some of the more modern ideas on this subject, particularly in regard to classification, x-ray therapy, other local treatment, intracutaneous treatment, source and prevalence of this infection from recent research, and, finally, sterilization of wearing apparel.

We are making every effort to simplify the classification of the more common diseases of the skin. This effort may partly be due to the frequent gibing we get from our professional brothers that we are "nomenclature specialists." The latter insinuates that we hide our ignorance under a cloak of Latin and Greek words. So in tinia of the hands and feet we classify it as being mild, moderately severe and severe. The treatment of course varies with the clinical picture and individual reactions. But for teaching purposes, I think that Andrews' division into types for therapeutic suggestions clarifies rather a difficult procedure. These types are as follows:

1. The vesicular type occurs most frequently on the palmar and plantar surfaces. Roentgen ray is the most valuable etiological therapy. This treatment in unfiltered fractional doses (¼ E. D. once weekly) usually cures in four treatments and may be used even in the very acute stage. Other local measures during this time must accompany the x-ray treatment. I use wet dressings of liquor aluminium subacetate (diluted at first 1 part to 8 parts of water, later increasing the strength as the acute dermatitis subsides). After this I advise soaking the hands and feet for 20 minutes at bed time in a solution of chloramine (Abbott's chlorazene tablets, 2 to one quart of water is convenient), the strength depending upon the clinical stage. The vesicles should be opened. In my experience dusting powders tend to inhibit drainage. I reserve the latter for dusting between the toes, into the sox and shoes in ambulatory cases. I advise using the dusting powder for eight or nine months after clinical involution. Apply Whitfield's ointment using ¼ to full strength. Only half strength is used during the x-ray therapy. Whitfield's ointment is the sheet anchor in nearly all types of tinia, but it must be intelligently used. I agree that the proprietary prostitution of this valuable ointment works a hardship on the therapist and possible damage to the patient's skin. The use of Lotio Calamine and Lassar's paste for the rest periods from active treatment is sound judgment. Sometimes, in our intense desire for therapeutic results, we destroy the result we are aiming at by over-treatment. It is unwise to permit a patient to apply an ointemnt to the feet during the day if they intend putting on their shoes.

2. The Intertriginous Type. The majority of the eruptions under this classification respond well under local remedies. The best procedure is to start with liquor aluminium subacetate as described above or solutions of zinci permanganate (1:5000 to 1:1000) soaks twice daily for 15 to 20 minutes followed by ointments containing graduated strengths salicylate acid and benzoic acid, adding phenol, thymol or menthol, according to the season (menthol is cooling in the warm months) or desire of the therapist. Do not put ointments to the feet during the day as suggested above. Fissures epithelialize promptly following the application of silver nitrate, either in crystal form or aqueous solutions. Some dermatologists use the Beta rays of radium for the treatment of recalcitrant intertrigenous lesions on the toes.

3. The Circinate Type. Again this type responds well under medicinal treatment. Using Whitfield's ointment—beginning with ¼ strength and increasing to ½ strength as eruption improves. When the eruption is irritated or infected secondarily or is nodular, pustular or is accompanied with furunculosis, roentgen therapy is of value. Usually one unfiltered exposure of ¼ to ½ E. D. of x-ray is sufficient. Actinic or ultraviolet rays are slowly beneficial in long standing cases.

4. The Scaling Type usually yields to local parasitic remedies. The popular ones are tincture of iodine, metaphen or mercurochrome, ointments containing sulphur, salicylic acid, 4 per cent, and 5 per cent ammoniated mercury ointment. Use soothing applications such as Lotio Calamine if the area is acutely inflamed. This type is often very resistant to treatment. Dryness and sunshine are very bene-

ficial. I feel that this type, as well as the interdigitate type, are allergic types of reaction and will probably respond best to trichophytin—beginning with dilutions of 1:50 and gradually increasing, as in hay fever therapy, to 1:1 dilution. C. N. Meyers and others in a recent article and personal communication stated "a follow-up of the series of patients reported in 1931 showed that 93 per cent of those who returned are now free from clinical symptoms; 26 per cent of patients had mild recurrences and ultimately cleared up with additional treatment and are found among the cured cases.

5. The Verrucous (or Keratotic) type must first be treated with keratolytic ointments or plasters containing salicylic acid or chrysarobin to thin the callosity. I often recommend rubbing in twice daily cod liver oil for 5 days, then sanding with the emery board, followed by roentgen therapy.

I am afraid that this is rather a long letter, but at that I have been able to hit only the high spots. Further information may be obtained from the recent textbooks and current articles in the medical journals or through the advice and counsel of a competent dermatologist.

Now to finish, may I call attention to the recent work done by Loren W. Shaffer in determining the source of infection and incidence of this very common disease of the skin. He examined more than 7,500 school children from the first to the twelfth grades.

1. "The incidence increases rapidly with the age or school grade of the child. It is believed that this rising incidence is due to the increasing susceptibility with age rather than to that of greater exposure.

2. "The type of disease found is indicated in the following table:

Sex	Very mild	Moderately severe	Severe
Boys	76%	20%	4%
Girls	82%	16%	2%

This table indicates that severe degrees of involvement are uncommon and that our problem is not as alarming as the incidence figure would indicate.

3. "There is little variation in incidence of the disease in schools which have gymnasiums; locker rooms and pools are not to blame for the spread of this disease."

"It is believed that prophylaxis can best be accomplished by rather a mild, continuous treatment of those who are susceptible to the disease. Paper or wooden clogs, the sterilization of floors, etc., cannot solve all of the problems of exposure."

Fungicidal dusting powders and sterilizing the shoes in a sealed chamber of formaydehyde gas will go a long way in my estimation in preventing recurrences. The medicated dusting powder used by other members of the family of infected individuals will tend to prevent contagion.

Yours very sincerely,
CYRIL K. VALADE.

DR. J. HAMILTON CHARTERS

Dr. J. Hamilton Charters, whose office was in the Kresge Building, Detroit, died very suddenly on June 22 of heart disease at the age of fifty-four years. Dr. Charters was a graduate of the Saginaw Valley Medical College and Northwestern University. He began practice in Gaylord, Michigan, in 1903, and later went west. He located in Detroit in 1922 and in 1926 he was elected to the council of the Michigan State Medical Society, where he served one term. Dr. Charters was of an optimistic personality and made many friends. He is survived by his wife, Ethel.

SOCIETY ACTIVITY

SPECIAL MEETING HOUSE OF DELEGATES

July 12, 1933

On June first a call for a special meeting of the House of Delegates was sent to the Secretary of every County Society. This special meeting will convene in the Olds Hotel in Lansing at 10:00 A. M. on Wednesday, July 12, 1933. The order of business will be as follows:

1. Call to order.
2. Report of Credentials Committee.
3. Roll Call.
4. Reading Call for Special Meeting.
5. Presentation of the report of the special Committee on Survey of State Medical Services and Health Agencies. W. H. Marshall, Chairman.
6. Communication from The Council.
7. Deliberation.
8. Motions and Resolutions.
9. Adjournment.

The Committee on Credentials will convene at 9:00 A. M. Delegates' credentials must be presented before a delegate can be seated. County Secretaries should provide certificates to their county delegates, for without such a certification a delegate cannot participate in the deliberations of this special session. This is an important meeting and every county society should arrange to be represented. Each county is entitled to the same number of delegates that were seated at the last annual session.

COUNCIL MEETING

The Council will hold a special meeting at the Olds Hotel, Lansing, at 8:00 P. M., Tuesday evening, July 11, 1933, for the transaction of such business as may properly come before this body.

B. R. CORBUS, *Chairman,*
F. C. WARNSHUIS, *Secretary.*

SURVEY REPORT

Printed copies of this report have been sent to the officers and delegates of every county society. These reports should be carefully preserved and made available for reference to the membership. While it

would be desirable to place a copy in the hands of every member the cost was prohibitive. To have supplied each member with a copy or to have printed the report as a supplement to the JOURNAL would have cost over $3,500.

During June a series of Regional Conferences for the study of the report were arranged and held. They were for the purpose of familiarizing county officers and delegates with the context of the report. These individuals should present their reports to their county society. Members will have copies of the report available for perusal in the offices of their county officers and delegates. Study and opinion should be based upon the Survey Committee's final conclusion which is:

"The committee wishes to record its knowledge that the foregoing conclusions and recommendations constitute only the first steps toward the solution of medical problems. It feels that the report has accomplished two things: first, a clarification of the problems in Michigan and, second, a declaration of certain broad principles upon which to build the future structure of medical service. If there is agreement among the members of the profession that these principles are sound, future progress should be rapid and effective.

"To paraphrase Salter, the committee has taken the system it knows, suggesting how it might be strengthened where it is weak, repaired where it has crumbled, and rebuilt where new needs require additions to its fabric. 'It is our system in which we have grown up that we must reform—and in part transform.'"

UPPER PENINSULA ANNUAL MEDICAL MEETING

Escanaba, Mich.

Program

Thursday—August 10

10:00 A. M. Hernia with Spinal Anesthesia —Operative Clinic, St. Francis Hospital—Frank A. Kelly, M.D., Detroit.

2:00 P. M. Management of Lobar Pneumonia in Childhood—M. Cooperstock, M.D., Marquette.

Chronic Infection of the Prostate and Urethra—Damon A. Brown, M.D., Madison, Wis.

Elaboration of morning's work—Frank A. Kelly, M.D., Detroit.

Management of Cardiac Failure, a Consideration of Digitalis, Diuretics and Diet—Charles L. Brown, M.D., Ann Arbor.

6:30 P. M. Banquet at the Delta Hotel

A Post Graduate Program—An Essential in Medical Education and in Medical Practice—James D. Bruce, M.D., Ann Arbor.

Medical Economics Applied to Practice—F. C. Warnshuis, M.D., Grand Rapids.

Friday—August 11

9:00 A. M. Lower Urinary Tract Infections—Norman F. Miller, M.D., Ann Arbor.

Urogenic Heart Disease

Hyperthyroidism and Myxedema—Charles L. Brown, M.D., Ann Arbor.

Head Injuries [Lantern Slides]—F. C. Warnshuis, M.D., Grand Rapids.

Business Meeting.

1933 A. M. A.

The 1933 Milwaukee session of the American Medical Association was held June 12 to 16. The weather was ideal, accommodations were comfortable and adequate and the hospitality was most cordial. The scientific exhibits were of exceptional merit and value. The attendance was around 5,000.

The House of Delegates transacted routine business. There were few resolutions relating to policy. Dr. Walter L. Bierring of Des Moines, Iowa, was elected President-Elect; Cleveland was selected for the 1934 session. The Secretary and Speaker were re-elected. Michigan's five delegates were in attendance at all the sessions and will present a full report at our annual meeting in September.

SOCIETY ACTIVITIES

Copies of the Survey Report may be seen in the offices of your delegates and county officers.

Special meeting of the House of Delegates will be held in Lansing, July 12, 10:00 A. M., Olds Hotel.

Upper Peninsula Medical Meeting will be held in Escanaba, Aug. 11 and 12.

Write for your room reservations for the Annual Meeting in Grand Rapids, Sept. 12, 13 and 14. See hotel advertisement in this issue.

Have you paid your dues to your county secretary? Funds are needed to carry on state and local activities.

The August JOURNAL will contain the program for our Annual Meeting.

COUNTY SOCIETIES

GRATIOT-ISABELLA-CLARE COUNTY

The May meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, May 18, 1933. A 7:00 o'clock dinner was served to eighteen members.

Vice President Hobbs called the meeting to order. The Minutes of the previous meeting were read and approved.

The following older members then related their early experience in the Practice of Medicine: Dr. C. M. Baskerville, Mt. Pleasant; Dr. L. J. Burch, Mt. Pleasant; Dr. C. D. Bullen, Mt. Pleasant; Dr. L. A. Howe, Breckenridge.

There were many interesting experiences related

by these members; also by other members in discussing this topic.

E. M. Highfield, M.D., *Secretary.*

LIVINGSTON COUNTY

An unusual combination of circumstances made for a late start this year for our society. Hence, the first meeting was not held until January 11, and took place in Howell. With the annual election of officers, Dr. George L. Leslie and Dr. Russell S. Anderson, both of the State Sanatorium, were selected as President and Secretary-Treasurer, respectively. Dr. E. I. Carr of Lansing addressed the society on "Indigestion." Dr. Carr stressed the extragastric causes of the symptoms of indigestion, such as chronic gall bladder infection, coronary thrombosis, etc.

The February meeting was held on the third at the State Sanatorium, where the society also met for the balance of the meetings for the season. The custom of preceding each meeting per se by a dinner was, as formerly, observed at these meetings and throughout the year. At a small cost it adds a delightful social phase to the periodic activities of a small society such as ours. Dr. Franklin Top of the Herman Kiefer Hospital, Detroit, spoke on "Recent Advances in the Treatment of the Common Communicable Diseases," an engaging résumé of the subject.

In March the society met on the third and had the pleasure of hearing a talk by Dr. C. Ward Ellis of Lansing, on chronic and acute infections of the nasal tract. Dr. Ellis further interested the meeting in giving an account of his expereinces in Berlin and Vienna, in which he described graphically the deplorable economic status of the physicians of central Europe in recent times.

At the April meeting, held on the 7th, Dr. Edward D. Spalding of the Detroit College of Medicine favored us with a fine talk on "Heart Disease of Middle Age."

The final spring meeting was held on the 19th. Dr. H. H. Riecker of the University of Michigan read an enlightening paper on "The Relation of Medical Education to Medical Practice," in which the need for a system of periodic post graduate study was stressed and the efforts of the University of Michigan Post Graduate School of Medicine to meet that need was outlined. Following this presentation Dr. Arthur C. Curtis of the University of Michigan gave a most interesting discussion of modern concepts of the anemias and their rational treatment.

The president, Dr. Leslie, during the year reappointed Dr. H. G. Huntington of Howell as Delegate for the Livingston Society, and Dr. J. J. Hendren of Fowlerville was designated as Alternate.

Our society had the pleasure of having members of the Livingston County Dental Association meet with us on two occasions during the season. Regular monthly meetings have been adjourned for the summer and will be resumed on the first Friday in September.

R. S. Anderson, M.D., *Secretary.*

NORTHERN MICHIGAN

The regular meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, June 15. After partaking of dinner the meeting was called to order by President Frank. Minutes of the last meeting were read and approved. Correspondence was read.

Report of the meeting of delegates at Traverse City on Committee of Survey of Medical Services and Agencies in the state was given by Drs. Mayne and Van Leuven.

Discussion was then held on the care of the indigent in Emmett County. Several supervisors present took part in the discussion. Motion was made and carried that the Public Relations Committee meet with the various boards of supervisors and present to them our Fee Bill.

Dr. Neihart, Petoskey, an honorary member of our local society, gave a short talk.

Dr. Beuker of East Jordan was appointed to the Program Committee for July and August.

E. J. Brenner, *Secretary.*

TUSCOLA COUNTY

The Tuscola County Medical Society held its regular monthly meeting for June at the country home of Dr. A. S. Rundell, June 8, 1933. The meeting was joined with the doctors' wives and the superintendent of the Caro Community Hospital, Miss Ruth Wiley, for the purpose of organizing a Ladies Auxiliary to the Medical Society. Mrs. G. L. Kiefer of Lansing honored the society by attending the meeting and assisting the ladies to form their organization.

After a very excellent dinner given by the ladies the two groups separated and conducted their meetings in the open air.

Dr. C. N. Race presented a report on the comparative costs to the county for indigent work for the past three years, covering the first three months of each year, showing a net saving of over one thousand dollars a month to the taxpayer, in spite of the well known fact that the number of indigent has greatly increased.

Dr. R. R. Howlett presented a very excellent paper upon the "Diseases Common to the Prostate" which initiated a very interesting discussion. This paper was very well prepared and so much interest was shown that it was suggested that copies be made and distributed to the members of the society.

Announcement was made of the Sixth District meeting to be held at the Elks Temple, Flint, Mich., June 22, 1933, 6:30 P. M.

It was moved and supported that the Tuscola Society endorse the organization of the Ladies Auxiliary. Carried.

Moved and supported that Dr. and Mrs. Rundell be tendered a vote of thanks for their hospitality.

Lloyd L. Savage, *Secretary.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

WAYNE COUNTY

A program arranged that dealt entirely with flowers and music was presented to the Woman's Auxiliary to the Wayne County Medical Society, April 11, at 2:00 P. M. Dorothy Miller Duckwitz Searle, pianist, furnished the musical part of the program, which was a very delightful feature. Mrs. Fred T. Murphy, president of the Garden Club of Michigan, discussed "Flower Arrangements, Dinner Table and English Gardens," with the assistance of Mrs. John S. Newberry. Mrs. Murphy's talk was illustrated by colored slides of pictures of all the English gardens which were taken while she was abroad.

Mrs. Murphy, along with about one hundred presidents of the Garden Club of America, was invited to the gardens of England. Mrs. J. F. Newberry exhibited two economy tables explaining how reasonable a table for six persons can be set up. The cost of one table was $3.40, and the cost of the other table was $2.70, complete and very attractive, including the linens on same.

At the invitation of Mrs. H. D. Chadwick, members of the Woman's Auxiliary gave a Benefit Silver Tea at Mrs. Chadwick's home. Mrs. Chadwick is a very clever artist and her art collections were on exhibit during the function, and a musical program was presented by Dorothy Doub, harpist, and Stella Susnjar, violinist. Mrs. C. L. Straith, president of the Auxiliary, and Mrs. R. E. Loucks, past president, presided at the tea table, and members of the program and revision committees served as hostesses during the afternoon. Mrs. Chadwick is a member of the Woman's Auxiliary and the wife of Dr. H. D. Chadwick. Dr. and Mrs. Chadwick have lived for many years in the vicinity of Boston, where Mrs. Chadwick is a well known member of the art colony and where she has studied and exhibited extensively. Her first Detroit show revealed the pleasant fact that an artist of taste and skill has been added to the Detroit group, where she was warmly welcomed.

The program committee of the Woman's Auxiliary sponsored a Benefit Spring Party Saturday evening, May 6, at 8:00 P. M. in the Central Branch of the Y. W. C. A., Montcalm at Whitherell Ave. The program consisted of greetings from our President, Mrs. C. L. Straith, orchestral selections by the Eastern High School students. Glenn Klepinger is their director. Pack-Woolins, one of Detroit's most elite stores, put on a fashion show of olden times and of the latest moment. Drawing for door prizes was conducted by Dr. E. P. Mills and Dr. H. W. Plaggemeyer. Table prizes were awarded to the winners at bridge. After the program, refreshments were served.

The Auxiliary held the last in a series of musical teas and social hours for this season at the club rooms, Woodward at Canfield, on Sunday, May 7, at 4:30 P. M. A program of music was given by the following: Edgar A. Guest, poet; Vera Richardson Theramin, soloist; Marion Van Liew Kupka, accompanist; Pierce Dowrie, tenor; Mrs. Edwin S. Sherill, accompanist. New members were honored at this party. Mrs. Frank W. Hartman, program chairman, assisted by her committee, acted as hostess on this occasion. Mrs. E. G. Minor and Mrs. H. W. Yates presided at the tea table.

Mrs. Leslie T. Henderson, *Publicity Chairman.*

KALAMAZOO

Mrs. H. A. Adroni, the wife of a Hastings, Michigan, physician, was the guest speaker at the April meeting of the Kalamazoo Woman's Auxiliary to the Michigan State Medical Society, held at the home of Mrs. F. M. Doyle. Mrs. Adroni, whose native land is Turkey, gave a most instructive and fascinating program on "Oriental Rugs." Twenty-nine members were present at the coöperative dinner, which preceded a brief business meeting held before the evening's program.

Mrs. Hugo Aach entertained the group at a cooperative dinner for the May meeting. Tulips were used decoratively and covers were placed for twenty-seven members. Following a brief business meeting bridge and a social time were enjoyed for the remainder of the evening.

(Mrs. F. M.) Wilma G. Doyle.

INGHAM COUNTY

The annual meeting of the Auxiliary to Ingham County Medical Society was held at the home of Mrs. L. G. Christian, on May 11, 1933. Luncheon was served to about forty members and was followed by the annual meeting and election of officers, which are as follows: President, Mrs. D. A. Galbraith; vice president, Mrs. T. G. Ruleson; secretary-treasurer, Mrs. George F. Bauch.

Florence F. Bauch, *Secretary.*

OAKLAND COUNTY

On April 21, 1933, members of the Women's Auxiliary to the Oakland County Medical Society were luncheon guests of Parke, Davis & Co. in Detroit. Moving pictures were shown and later a personally conducted trip was made through various parts of the plant.

The last meeting of the season was held on May 19, when luncheon was served to about twenty-five members at the Pontiac General Hospital. The election of officers for the year 1933-1934 resulted as follows: President, Mrs. J. E. Church, Pontiac; president-elect, Mrs. D. M. Mitchell, Pontiac; vice president, Mrs. E. D. Margrave, Royal Oak; secretary, Mrs. L. C. Sheffield, Pontiac; treasurer, Mrs. Earl W. Spohn, Royal Oak.

(Mrs. R. H.) Helen C. Baker,
Publicity Chairman.

OTTAWA COUNTY

The Woman's Auxiliary to the Ottawa County Medical Society met for their regular meeting May 16, 1933, at the Woman's Club of Holland, where the setting, music and tulips were typical of the land of the Netherlands. Here a "Dutch Luncheon" was served with the menu written in the Holland language, and the waitresses were beautiful Holland ladies with their colorful costumes of the "Home Land."

In the afternoon the Holland ladies took the visiting ladies around the city to see the tulips and points of interest. Mrs. Winters, retiring president, and Mrs. Kools, the new president, were hostesses to the group at the home of Mrs. Kools, and tea was served. About twenty-four ladies enjoyed this afternoon and counted it the best the year has given us.

SAGINAW COUNTY

The Women's Auxiliary to the Saginaw County Medical Society held a meeting May 26, 1933, at the Strinbek Party House, with twenty-eight in attendance.

After a delicious luncheon at one o'clock, the president, Mrs. L. A. Campbell, introduced Dr. F. J. Cady, president of the Saginaw County Medical Society, who addressed us upon the subject of helping the Medical Society.

The ladies voted to assist with the health program which the doctors will endeavor to launch.

It was planned to hold a bridge party to raise funds to carry on the work. A committee will purchase materials for layettes which the auxiliary will make and have ready for use when needed by physicians.

After the business meeting, bridge was enjoyed.

Mrs. J. A. McLandres, *Publicity Chairman.*

COD LIVER OIL CONCENTRATE (CONCENTRATED VITAMINS A AND D): INEFFECTIVENESS OF LARGE DOSES IN PROPHYLAXIS OF OTITIS MEDIA COMPLICATION SCARLET FEVER

The frequency with which localized purulent infections appear on the mucous membranes of animals and of man deprived of Vitamin A has led W. D. Sutliff, Edwin H. Place and Samuel H. Segool, Boston, to the view that an adequate supply of this vitamin may be essential for the maintenance of resistance to infection. They observed that the total incidence of otitis media in 343 cases of scarlet fever during five months was 11.3 per cent, a figure corresponding closely to that recorded by others. The total incidence of this complication in 509 similar cases observed during five months at the same time of year two years later, most of which were treated for ten days after admission to the hospital with a total of 400,000 U. S. P. units of Vitamin A contained in a concentrated preparation of cod liver oil, was 9.4 per cent. The use of cod liver oil concentrate in such dosage had apparently no effect on the liability of the scarlet fever patients to develop otitis media.—*Journal A. M. A.*

OBITUARY

DR. ROLAND E. LOUCKS

Dr. Roland E. Loucks of Detroit died at his home June 5, 1933, of cardiac failure. Dr. Loucks had suffered for about two years from cardiorenal disease, but after several months' confinement to bed had recovered so as to be about and to take care of his practice. He was born at Smith Falls, Ontario, in 1869. After attending the public and high schools of Smith Falls he attended the University of Maryland, where he studied dentistry and graduated D.D.S. in 1893, having been awarded the gold medal. He later attended Trinity University, Toronto, and graduated M.D. in 1903. He practiced in Detroit for thirty years. Dr. Loucks was a pioneer radiotherapist. He was at one time president of the American Radium Society. His reputation for the skilful use of radium was nationwide. He contributed extensively to the current medical literature on the subject. He was a member of the American Roentgen Ray and Radium Society, the American Radiological Society, the Wayne County Medical Society, Michigan State Medical Society and American Medical Association. Dr. Loucks was a long and active member of the Wayne County Medical Society who gave freely of his time in the interests of the medical profession. He is survived by his wife, Mae, one son, B. R., and one daughter, Anna. The remains were taken for burial to his old home at Smith Falls in Eastern Ontario.

GENERAL NEWS AND ANNOUNCEMENTS

The Upper Peninsula Medical Society will hold its annual meeting on August 10 and 11 at Escanaba.

One hundred and ninety physicians from Michigan attended the annual meeting of the American Medical Association in Milwaukee.

Dr. F. C. Warnshuis has been re-elected speaker of the House of Delegates of the American Medical Association for the eighteenth time.

Dr. Max Ballin of Detroit addressed the American Surgical Association at its meeting in Washington, D. C., on May 10. Dr. Ballin spoke on "Skeletal Pathology and Endocrinology."

Dr. William E. Keane of Detroit has been appointed extramural lecturer in the Division of Urology, Department of Post-Graduate Medicine of the University of Michigan. The appointment is for the year 1933-34.

The attendance on the Post-Graduate courses held under the direction of the Department of Post-Graduate Medicine of the University of Michigan has been excellent. Many members of the medical profession have taken advantage of the various courses given.

Dr. F. A. Coller, Professor of Surgery of the University of Michigan, addressed the Oakland County Medical Society on May 15 on the subject of "The Treatment of Advanced Cases of Acute Appendicitis."

Dr. Charles Kennedy of Detroit has been appointed a member of the Detroit Library Commission by the Detroit Board of Education. Dr. Kennedy's father, the late Dr. J. B. Kennedy, was a member of the Library Commission for a number of years and particularly during the years in which the new library building was under construction.

A special meeting of the House of Delegates of the Michigan State Medical Society is called for July 12, 1933, at 10 A. M. in the ballroom of the Olds Hotel at Lansing. This convention of the House of Delegates has a very important function to perform, namely, to receive the report of the special committee on survey of state and health agencies and to consider means of further studies and recommendations for the annual meeting of the House of Delegates in September.

Dr. H. Wellington Yates of Detroit has been appointed state chairman for Michigan of the American Society for the Control of Cancer. Dr. Yates has been largely instrumental in the development of a tumor registry in Detroit with its housing at the headquarters of the Wayne County Medical Society, 4421 Woodward Ave., Detroit, Michigan. The choice of Dr. Yates for this position is a happy one. His long experience as obstetrician and gynecological surgeon has been such as to fit him eminently for this position.

Dr. William Donald of Detroit entertained the officers of the Northern Tri-state Medical Society at luncheon at the Detroit Boat Club, June 18; among those present from out of town were: Dr. G. O. Larson of La Porte, Indiana, president for 1933-34; Dr. G. E. Jones and Dr. A. B. Pedlow of Lima, Ohio; Dr. Norris Gillette, Toledo, Ohio; Dr. P. N. Sutherland, Angola, Indiana; Dr. H. E. Randall and Dr. W. H. Marshall of Flint; Dr. Joseph Andries and Dr. J. H. Dempster from Detroit. The 1934 meeting will be held at the Hurley Hospital, Flint, on the second Tuesday in April. There will be an all day program, the first hour of which, 8 to 9 A. M., will be devoted to a "dry" clinic by members of the Genesee County Medical Society. We assure those who may attend, the clinic will not be dry. (Take that any way you wish.) The remainder of the day will be spent in listening to papers on a variety of subjects of general interest. A number of the outstanding surgeons and internists of the United States are being asked to take part. There will be a dinner in the evening to be addressed by a member of the profession, of national prominence.

As we go to press, the news has been received that Governor Comstock has vetoed the bill passed by the legislature which would give osteopaths powers equal to those of the medical profession, both surgeon and internist. In vetoing this measure Governor Comstock is reported to have stated his reasons as follows:

"This act would put osteopathic practitioners on a parity with members of the so-called regular school of medicine and surgery, and it appears to me that at the present time the bulk of the osteopathic practitioners have not yet adequate training in the general practice of medicine and surgery.

"It would therefore appear detrimental to the public health and discouraging to the high standards which the medical profession aspires to attain to

open the doors to equality in the practice of the healing arts and to make hospitals equally accessible to the practitioners of both schools.

"In compliance with the provisions of the Public Acts of 1903 we have a State Board of Osteopathic Registration and Examination which suffices, in my opinion, with the present needs of the profession."

DETROIT COLLEGE OF MEDICINE AND SURGERY ALUMNI CLINIC

The annual clinic given by the Alumni Association of the Detroit College of Medicine and Surgery on June 5th was a marked success. In spite of the excessive heat the registrations were reported to be over three hundrd. The program took place as announced. Dr. Crile of Cleveland gave a very interesting talk on Thyroid diseases and related conditions, such as peptic ulcer, neurocirculatory asthenia, hyperthyroidism, constitutional inferiority. He illustrated his talk by means of four or five chosen clinical cases. Dr. Walter C. Alvarez followed with an interesting discussion of gradient theory, Clinical Applications of recent discoveries in the physiology of the gastrointestinal tract. The talk was not only instructive but highly humorous. The afternoon was given over to viewing Rivera's murals at the Detroit Institute of Arts. The banquet in the evening was well attended and Dr. Crile presented a paper on "Orthogenesis and the Power and Infirmities of Man." Cameron McLean, well known to Detroit audiences, was at his best in a number of Scotch songs. Dr. Angus McLean gave a short address, which was likewise will received. Dr. McLean proposed as honorary member of the Alumni Association Major General M. W. Ireland, surgeon-general of the United States Army, who is a graduate of the Detroit College of Medicine and Surgery. The election was unanimous, as also was the election of J. M. Robb as President for the ensuing year. The graduating class was entertained at the dinner, as is always the custom. Dr. B. H. Larsson, president of the Association, presided.

KELLOGG FOUNDATION MEDICAL MEETINGS

The W. K. Kellogg Foundation in connection with the health education program being carried on is sponsoring medical meetings in the counties in which the Foundation is operating. They are as follows:

March 30—Eaton County Medical Society. Charlotte. Dr. Frederick Kidner, Detroit, talked on fractures of the extremities.

April 13—Barry County Medical Society. Hastings. Dr. Henry Buxbaum of Dr. Joseph DeLee's Clinic, Chicago, showed two films, "Safeguarding the Mother's Health" and "Psychology of Normal Labor." Discussion.

April 20—Allegan. Dr. Kellogg Speed of Chicago talked on mechanism of fractures and discussed Colles and hip fractures.

May 18—Nashville. Joint meeting of Eaton and Barry County Medical Societies. Dr. Joseph Brenneman, Chicago, talked on "Infant Feeding" and "Acute Abdomen in the Child."

May 23—Battle Creek Academy of Medicine and Dentistry. Dr. Harold C. Mack, Detroit, spoke on "Birth Control."

May 24—Allegan. Group of Allegan County physicians. Dr. Harold C. Mack, Detroit, spoke on "Birth Control."

June 1—Charlotte. Joint meeting of Barry and Eaton County Medical Societies. Dr. Harold C. Mack, Detroit, spoke on "Birth Control."

THE MEMORY OF DR. W. H. SAWYER HONORED

Fitting tribute to Dr. Walter H. Sawyer was made by the University of Michigan and the Michigan State Medical Society in the presentation of a tablet to his memory in a program at the Hillsdale high school auditorium. Dr. Alexander G. Ruthven, as president and representative of the University of Michigan, and Dr. Burton R. Corbus of Grand Rapids, as chairman of the council of the Medical Society, spoke. Dr. Joseph W. Mauck acted as chairman of the occasion, presenting the speakers to the 350 members of the audience. Dr. S. B. Frankhauser gave a short talk, reflecting the esteem in which the local physicians held Dr. Sawyer, and E. O. Gallway, chairman of the Hillsdale hospital board, accepted the tablet on behalf of the citizens and the board.

The bronze tablet will be placed in the local hospital, which Dr. Sawyer was instrumental in establishing. The tablet reads: "Walter Hulme Sawyer, M.D., LLD., Hon.; 1861-1931; in appreciation of loyal and devoted service to his University, his profession and his community. University of Michigan, Alexander G. Ruthven, president; Michigan State Medical Society, R. Milton Robb, president. May 2, 1933."

A similar memorial is being placed in the entrance at the University Hospital, Ann Arbor.

Included among the prominent University officials who were here for the occasion were Regent and Mrs. Junius Beal of Ann Arbor, Vice-President and Mrs. S. W. Smith, and Vice-President James D. Bruce. Frank M. Cook, Hillsdale's newly elected regent; C. E. Lewis, Hillsdale mayor, and T. M. Sawyer, Dr. Sawyer's son, were among the persons on the platform during the ceremonies.

DR. A. G. RUTHVEN SPEAKS

Dr. Ruthven, in his address, said:

"We have met here today to erect a monument to a man—to build a bridge from our generation to those which will succeed us. We perform this task for we believe that Dr. Walter Hulme Sawyer was a man who should be remembered.

"We often ask ourselves the question, 'What is the measure of man?' and then lose ourselves in a maze of detailed evaluations which are seldom adequate as summaries of lives and characters. The Spaniards have satisfactorily answered the question in an old proverb: 'Every man is the son of his own works.' When we grasp the true meaning of this proverb, we can understand the observation that 'contemporaries appreciate the man rather than the merit, but posterity will regard the merit rather than the man.' The thought that merit is reflected in a man's activities for society and outlives even the most attractive personality is the justification for the labor of love we are performing today.

"Dr. Sawyer we loved for his sincerity in friendship, his geniality in social intercourse, his steadfast determination in righteous causes, and his judiciousness in counsel; but posterity will value and refer to him as a constructive thinker and as a planner for social agencies whose growth marks the progress of civilization.

"Thus we are doing well to build this bridge, for in doing so we will lead our successors often to travel from their present to the past through an important life—a journey which must inspire any conscientious, thoughtful human being to unflagging zeal in the service of his fellows.

"As the representative of the University of Michigan, I herewith present this tablet to Hillsdale and the Hillsdale hospital."

TRIBUTE TO DR. SAWYER

Dr. Corbus paid tribute to Dr. Sawyer, outlining his value to the University and to the Medical Society in the following words:

"It is both fitting and significant that the Michigan State Medical Society and the University of Michigan should join in the presentation of this tablet honoring the memory and works of Dr. Sawyer, for he loved both, and year after year gave freely of his time and talents to further their interests. Both organizations have reason to feel most grateful to him, for in the development of each he exerted a most potent influence.

"The University of Michigan Medical School has, throughout the years, sent its sons into most of the cities, towns, and villages of the state. They occupy an important place in our Medical Society, as they do in their various communities. Like all large families the individual feels that love and affection justify a certain freedom of criticism. There have been times where these criticisms have been a bit embarrassing to both the University and the State Society. Dr. Sawyer had a keen appreciation of the requirements of a medical school. As regent he had acquired the point of view of the educator. He had, of course, the viewpoint of the doctor, for he was, all his life, a general practitioner. So he brought to the board of regents the attitude of the profession. Agreeing with the attitude, and standing solid where criticism of curriculum or hospital seemed justified. To the Medical Society he presented the attitude of the board of regents, the faculty and the educator. He did much to promote a harmonious relationship between these organizations whose interests usually lie together but sometimes are opposed, and this relationship was maintained, improved, established. Of his many accomplishments this was not the least. He was a general practitioner. He was the family doctor of this city and the countryside. Though a competent surgeon, I think that he would like to be called a general practitioner, and I know that he took pride in being the family doctor. A family doctor who was a man of judgment, of culture, of education; whose vision traveled far, not limited by the horizon of his state or his profession, who had a rare understanding of the problems of education and of educators, whose acquaintance and friends were legion, of all walks in life, and widely distributed. Like his close friend, Colonel Burr, who preceded him by only a few months, he commanded the almost universal confidence and affection of the profession.

"Twenty years ago we rejoiced in his election as president of our society. About this time he was a member of the board of registration in medicine, and was instrumental in setting the high standards now required of the graduate in medicine to practice in this state. His interest in the profession and in the medical society did not flag, though his direct activities became in time more limited, as the university and other affairs made increasing demands upon him, but he was always available for advice and counsel and we turned to him frequently for help. The impress of his delightful personality, his kindliness, his sterling character, lies deep in the consciousness of those who knew him as friend and neighbor, as doctor, as professional brother. He gave of himself unsparingly, to his patients, his university, his profession, and his state. 'He fought the good fight.' The Michigan State Medical Society is honored by having the opportunity to join with you, his neighbors, and the University of Michigan in paying tribute to him."—*Hillsdale Daily News,* Hillsdale, Mich.

THE DOCTORS' LIBRARY

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits.

LIGHT THERAPY. By Frank Hammond Krusen, M.D., Director of the Department of Physical Medicine, Temple University School of Medicine, Philadelphia. Foreword by John A. Kolmer, M.D., Professor of Medicine, Temple University School of Medicine. 33 illustrations. Paul B. Hoeber, Inc., New York. 1933.

THE ELEMENTS OF MEDICAL TREATMENT. By Robert Hutchison, M.D., F.R.C.P. Physician to the London Hospital and to the Hospital for Sick Children, Great Ormond Street. Second Edition. William Wood and Company, Baltimore.

This will be found a very useful little work, discussing as it does the principles of medical treatment of a number of conditions. The author discusses in a very intimate and conversational way diaphoretics and antipyretics, analgesics, hypnotics, purgatives and enemata, heart stimulants, heart tonics and diuretics, expectorants and antispasmodics, vasodilators, uric-acid solvents, urinary antiseptics, stomach mixtures, hemostatics, tonics and sedatives, insulin, specific treatment, physiotherapy and psychotherapy. A great many prescriptions are given in detail. The book may be fairly said to represent English usage in treatment.

THE COMMON CAUSE OF CHRONIC INDIGESTION, DIFFERENTIAL DIAGNOSIS AND TREATMENT. By Thomas C. Hunt, B.A., D.M. (Oxon), M.R.C.P. (Lond.) William Wood and Company, Baltimore, Mr.

This is a very interesting monograph on a subject of quite wide interest in the practice of medicine. This work will be found of particular interest to the general practitioner and to the young graduate starting into general practice. It will save him the trouble of reading the larger volumes on the subject, which of course should not be wholly neglected. The book will give the reader a viewpoint from which his knowledge of the subject may be enlarged by the more extensive works on gastric and intestinal digestion.

SURGICAL PATHOLOGY. By William Boyd, M.D., M.R.C.P.Ed., F.R.C.P. Lond., Dipl. Psych., F.R.S.C., Professor of Pathology, University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Third Edition, Thoroughly Revised. 866 pages with 477 illustrations and 13 colored plates. Philadelphia and London: W. B. Saunders Company, 1933. Cloth $10.00 net.

Perhaps the most authoritative description of this work is contained in the following quotation from the Foreword by William J. Mayo. "What is needed today in the literature of surgical pathology is a work that will serve as a handbook to the surgeon, and the internist, and a guide to the beginner in the field of medicine. Dr. Boyd has made an earnest effort to fill this need. His book is didactic in tone, as is necessary in a volume of this scope, not judicial, fortunately, because to be judicial one must deal only with proved facts and give no play to scientific imagination. It is a sincere attempt to place pathology before the student and the practitioner from the practical standpoint."

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII AUGUST, 1933 No. 8

CONTENTS

Industrial Backs. F. C. Kidner, M.D. 419

The Curriculum of My Hopes. Henry J. Vanden Berg, M.D., F.A.C.S. 428

Neglected Drugs. D. W. Fenton, M.D. 432

The Asthmatic Child. Samuel J. Levin, M.D. 436

Non-Specific Urethritis in the Female: Its Complications and Sequelæ. Reed M. Nesbit, M.D. 440

The Female Urethra. R. J. Hubbell, M.D. 442

Massive Intra-Abdominal Hemorrhage from Ruptured Graafian Follicle Cysts. Herbert W. Hewitt, M.D., F.A.C.S., and John George Slevin, B.Sc., M.D. 445

Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 448

Official Program, 113th Annual Meeting Michigan State Medical Society, September 11, 12, 13 and 14, 1933 450

Editorial:

Cancer Cures 454

Freedom of Speech 454

The Osteopathic Bill Vetoed 455

Is It Fear? 455

An Erroneous Impression 455

Back Pain 456

Medical Economics:

Supervision of Specialism. Andrew P. Biddle, M.D., Sc.D. 456

Society Activity 457

A Brief Medical History of Grand Rapids. Collins H. Johnston, M.D. 460

Minutes of the Special Meeting of the Council 464

Special Meeting, House of Delegates 465

County Societies 475

Obituary 476

General News and Announcements 476

The Doctors' Library 477

"INDUSTRIAL BACKS"*

F. C. KIDNER, M.D.

DETROIT, MICHIGAN

Pain in the back following an industrial injury is one of the most frequent causes of idleness. It costs enormous sums in loss of wages and in compensation awards. Its diagnosis and treatment are difficult and only vaguely understood by most physicians. It often deceives the most experienced among us. It forms a first rate basis for fraud and malingering, because it is so little understood. Confusion about it is the rule in the minds of judges, juries, compensation boards, lawyers and doctors. This confusion leads to frequent injustice either to employer or employe and to much waste. The object of this paper is to attempt to clear up a little of this confusion.

The most common causes of mistakes, in the handling of injured backs, fall into three main groups. The first of these includes the errors which result from ignorance of the true anatomy, physiology and pathology of the spine. The second includes inefficient and inaccurate methods of examination. The third, improper treatment based on faulty diagnosis.

It is only within recent years that the detailed anatomy of the back has been given any considerable amount of attention in our

*Read before the Kalamazoo Academy of Medicine, December 23, 1932.

medical schools. It was a fundamental error in teaching, to give the student the impression that the human spine, anatomically, is an extremely strong and stable bony structure so knit together by powerful ligaments and muscles, that only the most violent of injuries can disturb its integrity. I well remember, in my medical school days, anatomical demonstrations which showed how small was the motion between adjacent units of the spine and pelvis, and how difficult it was to destroy the normal relationships. This conception of the anatomical strength and mechanical perfection of the component parts produced in the medical mind a basic unwillingness to admit spinal injury, unless gross deformity or cord damage could be demonstrated. Hence, the term "Railway Spine" was used as a polite method of saying that any one who complained of his back, and in whom these gross lesions did not appear, was a malingerer who refused to work because he desired to collect damages. It is only in recent years that study of the many true joints, of the delicate balance among the various structures, of the faulty mechanism which resulted when man became erect, of the many anatomical variations, of the close relationship between nerves and joints, and of the inherent weakness of the ligaments when poorly supported by weak muscles, has served to dispel the tradition of the impregnability of the human spine. From the physiological point of view, our teachers gave us little information as to the normal range of motion in the individual joints or as to the normal range of motion of the spine as a whole. They taught us little of the weakening of the muscles and, secondarily, of all the other soft parts, which result from fatigue, overstrain or bad posture. They passed lightly over the fact that a structure physiologically perfect, when used in the horizontal position, as in quadrupeds, may be anything but perfect when subjected to the wholly different strains of the erect position and that its whole action must change with the change of attitude. They did not tell us that, instead of being an extremely strong structure, the back was really a particularly weak one and functioned under very serious mechanical handicaps. In this connection may I quote the opening sentence of the first lecture in my college course in physiology. It was delivered by an extremely brilliant but somewhat erratic and very youthful professor. Here is the sentence, which I have never forgotten: "The human body is the result of a concatenation of circumstances which every good physiologist must admit has produced an eminently poor mechanism." How correct his words were with respect to the rest of the body, I leave it to you to decide, but we must all admit that, in respect to the spine, his words contained a modicum of truth.

From the pathological side tuberculosis, gross fractures and a few other major lesions were recognized, but little was said of the many types of arthritis, of the strains and sprains of ligaments and muscles, of tumors, of syphilis, of the pathological effects of congenital anatomical defects and of the nerve pressure and pain which result from bone or joint pathology.

Under the second group, the faults of methods of examination and diagnosis, many points must be considered. Ignorance of the anatomy of the back is still, unfortunately, widespread among physicians. Such ignorance makes it impossible for anyone to make an intelligent physical examination or formulate a reliable opinion as to the cause or treatment of any post-traumatic backache. One must know his anatomy thoroughly, in order to evaluate the significance of symptoms and signs. Haste and carelessness in making an examination lead to errors which return to plague the examiner when he appears in court. Before the use of the x-ray, accurate estimates of bone and joint changes were impossible. Even today x-rays of poor quality or those taken in the wrong position or at the wrong angles lead to error and confusion. For instance, a compression fracture or a spondylolisthesis may be entirely missed if a lateral x-ray is omitted. A diagnosis of spinal curvature may be made from an x-ray taken when the patient was not lying straight on the table. Without well taken, well interpreted x-rays, many mistakes must occur.

The third group of confusing factors consists of errors in treatment. These arise from faulty diagnosis, combined with ignorance of methods of treatment, and lack of courage in carrying them out. They are responsible for the huge number of chronic painful backs, which cause prolonged absence from work. Some of these serious cases are unavoidable even when most effi-

ciently treated, but the vast majority can be avoided if proper treatment is instituted early.

These then are a few of the handicaps which often prevent a satisfactory solution of the problem. Let us now consider some of the advances in our knowledge which have helped to overcome these handicaps.

Perhaps the most important of these advances is the modern conception of the spine as a flexible mobile structure basically similar to an arm or a leg. Instead of thinking of the spine as a rigid structure subject to very few ills, we are beginning to realize that the joints of the spine, although they have a very small range of motion, are in every other respect exactly like the knee or ankle. They have articular cartilage, ligaments and synovia. They are controlled and supported by muscles, and, being anatomically and physiologically like the knee and ankle, they are subject to exactly the same ills. They can be strained, in which case the muscles surrounding them are overstretched and become painful. They can be sprained, in which case their ligaments are overstretched or ruptured and traumatic synovitis with its usual sequelæ, effusion and adhesion formation, occur. Fractures into them may cause synovitis and impaired function just as in the elbow. They are subject to all the types of infections and proliferative and degenerative changes that occur elsewhere. The bones of the spine are subject to all the diseases and fractures that occur in the other bones of the body. Osteomyelitis, syphilis, comminuted or compressed fractures all occur. We now know that the spinal ligaments which connect the various vertebræ are strong, but that, deprived of the protection of healthy muscles, they gradually stretch and lead to relaxed unstable joints. This relaxation in turn leads to bad posture and chronic strain. We are beginning to learn that the intervertebral discs, with their strong annulus fibrosus and nucleus pulposus, not only act as buffers between the vertebræ and as immensely strong connecting links, but that they too are subject to injury and disease. We know that the muscles of the spine are subject to strain, fatigue, rupture or inflammation, and that their afflictions are probably the commonest cause of backache. In addition to all this, we know that the close relationship of the nerves, as they leave the spinal canal, to the bone and joint structure of the spine, makes them extremely liable to irritation or pressure.

If we can keep all those newer conceptions in mind, we can attack the problem logically. In the leg it is possible to see and feel the evidence of injury. In the back, this is impossible, but if we think of the back in terms of the leg we shall be able to reason out the probable damage caused by any given injury. We shall be able, much more easily, to connect symptoms and signs with a rational pathological picture and from that picture to proceed to a rational course of treatment. We shall think of the spine as a complicated machine any one of whose parts may get out of order and throw the whole mechanism out of coördination. We shall search for that one part first, but we shall realize that it alone is not always responsible for all the symptoms. We shall be able to take much more intelligent histories and make more accurate examinations, so that we can distinguish more clearly between the results of traumation and disease and between the true and the false.

Along with advances in methods of diagnosis we have advances in treatment. The principles of these are the more intelligent use of rest and physiotherapy and the correction of deformity.

Another advance is the increasing willingness of employer and insurance company to face the problem of backache squarely, and to allow proper treatment of the cases. Unfortunately, we are still handicapped by the fact that we do not see the mild cases immediately after the injury, when diagnosis is easiest and treatment most satisfactory. There is still delay which results from the unwillingness of the workman to quit for what he laughingly calls a "crick" in his back and from the tendency of the factory foreman to consider minor back injuries so unimportant as to need only the attention of the factory first aid station. Both of these attitudes must be overcome by education, for it is, in my opinion, an established fact that all back injuries except those involving fracture, dislocation or pre-existing bone change, can be cured promptly and easily by early, efficient treatment.

All injuries of the back produce definite lesions which can be recognized by their symptoms and signs. Differentiation can be accomplished only by the most careful phys-

ical examination aided by a thorough knowledge of these symptoms and signs and their underlying anatomy, physiology and pathology. To help in this differentiation let us now consider typical cases of disability due to back injury.

A stocky muscular laborer, while carrying a heavy object, stubs his toe and in his effort to retain his equilibrium twists his back sharply. There is immediate moderate or sharp pain in the lumbar region, but he is able to stand erect and, after a few moments rest, to go on with his work. As the day goes on the pain gradually increases. It is of a dull aching character and is made worse by stooping. Finally he quits work and his foreman tells him to go home to bed and that he will be all right in the morning. He does go home and to bed, experiencing considerable difficulty in removing his shoes and trousers. His wife helps him and props him up with pillows and gives him a hot water bottle. By morning he is so stiff and lame that he cannot get up. He sends for a doctor, who tells him he has lumbago, gives him salicylates and keeps him in bed. He is laid up for ten days. If he returns to work then his back is sore and lame for weeks. Another slight injury and a chronic partial disability is established. If this man had been seen by a competent industrial surgeon, the night of his accident, a diagnosis of injury to some of the fibres of the erector spinæ muscles would have been made. This diagnosis would have been based on the following symptoms and signs: Pain, diffuse and dull in character, across the whole lower lumbar region,—exact localization of this pain cannot be made but it is near the skin surface. It is increased by motion but is a stiffness rather than a shooting pain. It is not referred. It is relieved by hyperextension. There is sharply localized tenderness in the muscle itself at the point of the rupture. There is moderate diffuse muscle spasm. There may be a tilt of the spine to the affected side. Motions in all directions are possible but guarded. Proper treatment should have been rest in a bed which is prevented from sagging by the insertion of boards under the mattress. In such a bed the patient should be flat on the back with a firm pad, such as a folded sheet, under the lumbar region. A small pillow is too soft. If he tires of this position, he should lie on his face with pillows under his hips and chest. Both of these maneuvers hyperextend the spine and relax the damaged muscles. The hard bed is absolutely essential to the treatment of all back injuries and should never be forgotten. The principle of hyperextension is also of universal application. Further treatment of our imaginary patient should have included heat applied to the painful area. Any kind of heat is satisfactory as long as there is enough of it. At the end of forty-eight hours, massage should have been started. Under such treatment the cases of muscle damage will be back at work soundly healed in ten days to three weeks, and the danger of recurrence will be largely avoided.

These simple cases of muscle damage are probably less common than those involving the lower spinal joints, the lumbosacral and sacroiliac, although they are very common. In studying the joint injuries, several important facts must be kept in mind. The joints normally have only a small range of gliding motion. They are under excessive strain, whenever the body is erect, because of the obliquity of the sacrum and because of the angle between the sacrum and the fifth lumbar vertebræ made necessary by the change from the quadruped to the biped method of walking. They are very frequently asymmetrical in shape and size, a fact which predisposes to instability. Each of them separately may be damaged and damage to any one is reflected in extra strain on the others. For these reasons it simplifies the problem of diagnosis to consider all four of these joints together and think of all the structures of lower back as one large joint. If we adopt this simplified point of view we can speak of, visualize and treat a sprain of the back exactly as we should a sprain of the ankle. We can realize that when such a sprain occurs there is tearing of the ligaments of one or more of the four joints, which produces hemorrhage in the periarticular tissues and effusion into the joint. This rupture of the ligaments is directly painful because of damage to the sensory nerve endings in the ligaments and indirectly painful because of pressure on the nerve roots in the immediate neighborhood of the particular joint. The symptoms and signs are similar, whatever joint is affected. Sprains are much more serious than simple muscle tears because of the fact that joints heal less rapidly than do muscles. Lack of

blood supply explains this. Susceptibility to sprain seems to be just about the same in heavy, muscular, thick-set individuals as in those of lighter build. This perhaps is because the lighter individuals tend to follow lighter kinds of work.

A typical case of back sprain may be described as follows:

A man while at work lifts a heavy weight, his body being in a disadvantageous position. There is a sudden snap in his lumbar region accompanied by knifelike pain. He loses all strength in his back at once and is unable to straighten up. Gradually he gets into the erect position and the pain subsides. If the damage is slight, he may continue work; if great, he has to be taken home. As the day goes on, the pain again increases and the patient is forced to bed, where it is extremely difficult to find a comfortable position or to change position. Examination at this time will show, if the patient can stand, a sharp list of the whole spine, due to protective spasm, toward the affected side. Extreme spasm of the erector spinæ, tenderness on deep pressure over the affected joint and spasm of the hamstrings which prevents straight leg raising. There may or may not be sciatic pain. This depends on whether or not the effusion presses on sciatic roots. The man who has such a sprain is just as truly disabled as if he had a bad ankle or knee sprain. Unfortunately, the damaged lumbar joint cannot be seen as can the knee and ankle. Therefore, the one infallible sign of sprain, swelling, is not recognized. If it could be seen no physician would fail to splint or rest it as he does the sprained ankle. Because the swelling of the damaged back joint cannot be seen, the tendency of physician and patient is to minimize the importance of the condition and cut short the period of treatment. Treatment should be immediate and radical. If it is, these joints will heal just as properly treated ankles do. If it is not, the foundation of a chronic industrial backache is laid. We all know how difficult these are to deal with. Just as the neglected or half-treated football ankle rises up to plague its owner, all through life, so the neglected acute back sprain rises up to plague the Industrial Insurance Company forever.

Treatment of these acute back sprains is the same as that of muscle injuries. Rest in a hard bed in the hyperextended position, heat, massage early, active and passive motion in the recumbent position when pain has disappeared, gradual restoration to activity with back protection, belt or brace, as symptoms disappear, resumption of work only when heavy setting up exercises can be done without pain. Three weeks is the minimum safe disability for this type of case. Often six weeks is better if we are to avoid recurrence and ultimate chronic backache.

A few of these back sprains are accompanied by subluxation of the affected joint, usually the sacroiliac. Others are accompanied by an acute severe muscle spasm whose mechanism is not understood. They are the cases which respond so miraculously to manipulation by the osteopath or by the regular surgeon. Unfortunately, the average surgeon considers any form of manipulation as beneath his dignity. If he would use its simpler forms oftener, osteopathy and chiropractic would be less popular. The essentials of these manipulations seems to be to stretch, more or less violently, muscles which are in acute painful spasm and to reduce any existing subluxation. The most effective have, as their basis, strong flexion or extension of the thigh on the trunk with the knee straight, and the patient flat on the back or face. This maneuver transmits force to the lower back muscles and shifts the pelvis on the spine by power carried through the taut hamstrings or hip flexors. The mechanism of the lesions which can be thus cured is not yet satisfactorily explained in terms which the regular surgeon can accept. The x-ray does not show them. The irregular practitioner thinks he understands them, although the frequent failure of his manipulative treatments makes one question whether he is correct. Certain it is that manipulation without an anesthetic in some acute cases and with an anesthetic in many chronic ones is worthwhile.

These two descriptions represent the acute back injuries commonly met with and they account for a great portion of industrial back disability. Their early and radical treatment is most important. Chronic backache may originate from them. It may be the result of oft repeated minor injuries. These are the necessary concomitant of constant use of the back in strained position. The ditch digger must bend constantly, the whole weight of his body being supported

by the mechanically weak lumbar structures. The jeweler must sit bent closely over his work as he studies it through his loup. The miner stoops in his low drift. These and many similar occupations throw a strain on the muscles and ligaments of the lower spine, which, occasionally undergone, is harmless, but which repeated constantly finally proves too much and the lower back muscles become overstrained, the ligaments relaxed, and the joints hypermobile. Pain, whenever the position of strain is adopted, becomes more and more disabling. Self protection against this form of disability is often worked out empirically, as in the case of the common laborer who wears a wide leather belt around his hips just below the crests of the ilia. This helps him by holding the two ilia tightly together, thus making the sacroiliac joints more stable. The motorcycle messenger wears a wide leather corset which protects the lumbar spine from the constant jolts and jars of his hazardous labors. This type of back trauma is very common and is usually brought to light through the occurrence of some acute injury which calls the attention of the workman to his chronic backache. It can be dealt with successfully only by changing the type of employment.

So much then for the minor spinal injuries. Let us now consider the more severe. Severe crushing with damage to the cord does not come within the scope of this paper. Compression fractures of vertebral bodies sometimes accompanied by minor cord injury are common and very important. Injuries of the intervertebral discs occur and are beginning to be recognized as the explanation of otherwise obscure backaches and cord symptoms. Fracture of the lateral articulations and laminæ and spondylolisthesis while not common must be remembered and recognized when present.

In discussing the crush or impacted fracture of the body of the vertebra, we need say nothing of its mechanical causes except that comparatively slight trauma may induce it and that it is commonest at, or about, the dorsolumbar junction where the rigid and the flexible portions of the spine come together. Unfortunately, this facture still goes unrecognized far too frequently. I have now under treatment a doctor's wife who was hurt in an automobile accident. She had multiple injuries, among them a fracture of the first lumbar vertebra. Because the other injuries were important and because an x-ray of her spine taken only in the anteroposterior plane was negative, her fracture went unrecognized for seven weeks in spite of her constant complaint of back pain. Although recognition of this fracture from physical examination alone is not easy, is should be made after any accident, where there is a possibility of its occurrence. Localized back pain combined with tenderness on deep pressure over one spinous process, even in the complete absence of hyphos, is very strong evidence of its presence.

The treatment of the crush fracture of the vertebral body, once recognized, has gone through a curious development. It was realized early that this fracture was peculiarly disabling in that under usual methods of treatment back pain, severe and often girdle-like in character, persisted indefinitely. This persistent pain is due to two factors: redundant callus formation which presses on the closely attached soft parts or nerve roots, and pinching of nerve roots, the result of reduction in diameter of their canals, through narrowing of the intervertebral space. To minimize these effects early attempts at treatment were directed toward fixation alone of the fracture. Reduction of the fracture, the chief desideratum in other bones, was considered to be too dangerous and technically too difficult. Most of the early articles on this subject advised prolonged extension in bed, or in plaster-of-Paris, followed by further fixation by plaster-of-Paris after the patient is ambulatory, or fixation by internal surgical methods. Gradually the unsatisfactory results obtained by these methods led to a more determined effort to obtain reduction of deformity. Simple hyperextension of the patient's back by means of pads or plaster shells was not sufficient and various mechanical methods of obtaining gradual but complete distraction of the impacted fragments were introduced. They all depended on some type of frame on which the patient lay recumbent so that the weight of the arms and legs acted as traction and counter traction. Thus the spine was gradually more and more hyperextended and the impacted fragments drawn apart. When once pulled apart hyperextension was maintained until solid bony union occurred in twelve weeks or more. This principle, perhaps best ex-

emplified in frames of the Rogers type, whose degree of hyperextension may be increased at any desired rate, improved results greatly and led to almost complete abandonment of internal fixation operations, except for old neglected cases. The method of gradual extension was not always successful and was slow. Therefore, certain investigators, notably Davis and Dunlop, undertook the forcible immediate reduction of the fracture under analgesia or anesthesia. Their methods both consist of a combination of manual and mechanical hyperextension applied forcibly near the seat of fracture. Both report considerable series of cases with excellent restoration of normal anatomy and without accident. Recently, O'Donoghue, of Sioux City, has published a method of reduction by means of an automobile jack placed under the spinous process of the injured vertebræ. I have used this method only once, but from the points of view of certain reduction and accurate and safe application of the force, at the exact point desired, it appeals to me most strongly. There is one possible danger in this method. If the laminæ of the vertebra are also broken, a thing extremely difficult to demonstrate by x-ray, pressure on the spinous process might damage the end. This danger can be avoided by a simple saddle arrangement on this jack which places the pressure on either side of the spinous process.

Reduction of the facture once gained, splintage in the corrected position should be maintained as in any other fracture until consolidation is complete. Only the x-ray can determine this. Twelve weeks is a minimum. As in other properly reduced fractures, there are no prolonged disabilities. With these modern methods of diagnosis and treatment of compression fractures of the vertebral body, we should not be content with any result short of a normal back and this injury as a cause of permanent disability should disappear.

The diagnosis of compression fracture is not always easy. Even in good x-rays the compression of vertebral bodies which follows disease, particularly hyperparathyroidism, may be interpreted as fracture. Congenital deformity may closely resemble fracture. Differentiation of fracture from other condition is best made by the irregularity of the damaged bony plate and the condensation of the subjacent bone which are characteristic of fracture.

Injuries of the intervertebral discs as a cause of back pain are not common, but they do occur. They can be recognized only by the x-ray. They consist of a bulging or hernia of the nucleus pulposus through the annulæ fibrosus. This hernia may enter the vertebral canal and cause pressure on the cord, or it may push through the bony plate of the adjacent vertebral body into the spongy bone. In the one case, laminectomy for the relief of pressure is necessary. In the other, the pain, which is usually moderate, may be relieved by rest and a back brace.

Spondylolisthesis or forward displacement of the fifth lumbar vertebra on the sacrum, or rarely of the fourth or the fifth, has been attributed to injury sufficiently severe to rupture the spinal ligaments and fracture the lateral articulations. Recent research has made this explanation of the process extremely doubtful. It is probably due to congenital failure of union between the normal anterior and posterior centers of ossification of the arch of the vertebra. This failure of union takes place just at the base of the lateral articular facet. It allows the body of the vertebra, under the strain of weight bearing, to slip slowly forward as the cartilaginous union stretches. Frequently the condition is discovered in young people, purely by chance. When it is discovered after a back injury it is difficult to determine its importance as a cause of pain. Probably its presence predisposes to ligamentous stretching or rupture because it increases the normal instability of the lower back. Certainly its presence increases the difficulty of treatment of lower back injuries. To overcome this difficulty, internal surgical fixation of the region is sometimes necessary, as it rarely is in other forms of back injury.

So far we have considered the commoner acute back injuries, their diagnosis and treatment. We have determined that they get well with reasonable treatment in a reasonable time. We must now proceed in the consideration of the much more discouraging chronic industrial backache. They cost the employer untold sums of money. They are a common excuse for malingering. They frequently lead to complete loss of individual morale and they tax the ingenuity

of the surgeon to the utmost. All of us see them in our office and hospital practice and many of us see them in the court room. They always start from single or repeated traumata which have been ineffciently treated. They all present a symptom-complex of pain which prevents work. They prevent stooping, lifting, standing and walking. Gradually the sufferers from these backaches become so hedged in by their pain reflexes, by the sympathy of wife or friends, by the desire to collect compensation and to lead an easy life, that their will to work disappears entirely. Many of them have real pain; some simulate it. The causes of the real pain are, first, the pathological changes which result from unhealed joint damage. Just as a repeated sprain of the ankle and knee will set up a chronic arthritis, so will repeated sprains of the sacroiliac or lumbosacral joints set up a thickening of capsule and atrophy of joint cartilage, which produces malfunction and sensory nerve disturbance. Just as a badly damaged ankle will remain thickened and stiff for months or years, so will a sacroiliac. In the ankle the pain remains local. In the lumbrosacral joint it may radiate down the sciatic nerve, because the roots of the sciatic are pressed upon as they emerge from the spinal canal. The second cause of pain is the fibrosis and loss of elasticity in the muscles and ligaments which follow hemorrhage tears or repeated overstrain. Both of these can be avoided by proper treatment of the original injury. The longer they are left without such treatment the more resistant they become. The fibrosis and loss of elasticity is common to the tissues surrounding fractures of the vertebral bodies, sprains or fractures of the vertebral joints. They are the simple causes of chronic backaches but their interpretation and treatment are much complicated by the frequent existence of some form of chronic arthritis. Long standing pain, anywhere in the body, is apt to lead to the habit of pain. This is particularly true in the back, because no matter what position the patient adopts, there is some degree of strain and irritation. Diagnosis at the pathological conditions which cause these backaches and evaluation of the symptoms are very difficult. The tendency of the patient to exaggerate symptoms is almost universal. Unfortunately, the courts and juries do not realize this and almost invariably take the patient's description of his symptoms at their face value. In arriving at a fair estimate of any given case, certain signs and symptoms are of the greatest value because they are difficult to simulate. Most important of these is involuntary protective muscle spasm. It is always present in actual back pathology. It is most marked in the immediate region of the lesion, but may involve the whole back. It is constant and relaxes only when the patient is recumbent. Superficially, voluntary muscle spasm may simulate the involuntary type, but it differs in the fact that it is not constant, that it is accompanied by apparent effort of will and that it can often be made to disappear by distracting the patient's attention. Tenderness over the site of a real lesion is usually present. It is constant and does not move from place to place. A damaged sacroiliac joint will be tender to light pressure. A deeply buried lumbosacral joint will require deep pressure, to elicit tenderness. If either of these persist, we may be sure that there is real trouble. If the tenderness shifts as the examination goes on and the patient's attention is distracted, it is highly probable the trouble lies in the patient's mind, rather than in his back. Motion of the back in various directions is always limited by true back lesions. The limitation of motion depends on protective muscle spasm which guards the particular lesion. Thus, forward bending is always limited by irritation around the lower lumbar joints. Lateral bending is usually more limited away from the damaged side than toward it. When all motions of the spine are limited to a few degrees, either a wide spread arthritis of nontraumatic origin exists, or the patient is willfully refusing to carry out motions which are really possible.

Examination of the peripheral motor and sensory reflexes are of great importance in these chronic backaches if we are to avoid errors. A persistent sciatica following a back injury may be due to joint injury. It may, on the other hand, be due to an unsuspected cord tumor or to malignant disease of the pelvis. If then the examination of the muscles and joints of the spine, supported by good x-rays, fails to reveal any cause for sciatica, a diagnosis of malingering should not be made, unless the neurological examination has been carefully carried out. I have seen numerous cases of

backache and siatica, in which the most careful examination failed to reveal a cause, continue in spite of the best of treatment for months or even years, only to develop finally the neurological signs of a slow growing cord tumor. In the course of examination of cases of traumatic backache, the routine examinations of the blood, urine, abdomen and rectum must never be forgotten. They may disclose evidence which entirely divorces the backache from the injury claimed.

The treatment of these chronic cases is most difficult and often unsuccessful. It involves a keen insight, on the part of the surgeon, into the mental as well as the physical side of the individual. It is never successful unless the patient really wants to get well. In these days where work is so hard to find and where $18.00 a week compensation is equal to part time earnings, cures are more infrequent than ever. Nevertheless, proper treatment often does succeed. The fundamentals of proper treatment are these: First establish a friendly relation of mutual confidence with the patient. How to do this is a study with every case. After this try to remove the settled hopelessness of mind and instill, instead, a fixed belief that ultimate cure will come about. Such statements as these may induce a smile among my hearers because they savor of romance. Nevertheless, they are true and if the medical profession had used them universally, Christian Science would never have succeeded. The mental exercise involved in establishing this happy relation with the mind of the average laborer is great, but it provides a lot of fun. Unless it can be accomplished, further treatment is of little use. When it is accomplished, treatment continues as follows: First, a long period, six to ten weeks, of complete rest, preferably in bed but sometimes in plaster-of-Paris, which immobilizes the lower spine. For this the jacket is not sufficient and a spica must be used. This complete rest always stops pain when there is any real traumatic lesions because it removes all strain from damaged joints, muscles and ligaments. If it does not stop pain then the patient is malingering or he has active bone disease such as metastatic cancer or he has a cord tumor. When the habit of pain has been overcome by the complete rest, reeducation of the various structures of the back should be undertaken by means of all the devices of physiotherapy. Heat, massage, diathermy for its mental effect, active and passive motions, accomplish much to restore the function of long unused muscles and joints. If they can be carried on without causing pain, until normal motion becomes habitual while the patient is still in bed, a long step has been taken toward restoring him to active life and usefulness. They must be continued long after the patient gets out of bed. Some efficient form of back brace should be worn during the convalescent state. The road described is long and hard but it is often successful.

Operations for fixation of various parts of the traumatized spine have a place, but to my way of thinking that place is getting smaller and smaller. Before correction of impacted vertebral bodies was recognized as a routine possibility, the Hibbs fixation undoubtedly did much to prevent excess callus and pain. Fixation of the sacroiliac and lumbosacral joints is of value, in very carefully selected cases, in which the seat of the trouble can be located definitely. I find this extremely difficult to do. In my experience the results of fixation of various parts of the spine, to relieve chronic pain, especially in laboring men, have been very disappointing. The reverse of this is true in bone tuberculosis.

The influence of chronic arthritis on traumatic backache is a serious question. An x-ray which shows hypertrophic spurs is common after the age of forty. In fact most of us who have had active lives show them. Their existence is probably the result of ordinary wear and tear. Many individuals with these spurs never realize their existence until some spine injury brings them to notice. Undoubtedly, many go through life with no disability traceable to them. When a back injury temporarily incapacitates an individual, whose x-rays show these spurs, it is difficult to prove that the injury is not the sole cause of the disability.

Chronic arthritis of the spine has many causes beside the usual wear and tear. Infections, focal or general, metabolic chemical disturbances induced by poor intestinal functions—the old fashioned intestinal stasis—certainly bear a part in joint irritation and produce spur formation. Whether an injury superimposed on these chronic arthritic conditions is not productive of more pro-

longed disability than in the normal spine, is difficult to decide. Probably the relation between the injury and the pre-existing condition is very slight.

In preparing ourselves to testify in court on one of these traumatic back cases we must be careful to avoid certain pitfalls. These occur frequently and originate from the misinterpretation of congenital anomalies or of disease appearing in x-ray films. The most frequent of these are the numerous congenital anomalies in the region of the fifth lumbar and first sacral. They are so frequent as to make it difficult to establish a normal for this region. Many of these anomalies predispose to injury because they interfere with the normal body mechanics. They do not in themselves cause pain. The bifid spinous process is often mistaken for a fracture. Two cervical vertebral bodies, congenitally fixed, may be interpreted as the result of fracture or disease. Congenital half vertebræ may be mistaken for dislocations. The crushing of a vertebral body due to disease, such as hyperparathyroidism, may resemble a crush fracture. Only wide experience can teach us to read these anomalies correctly.

CONCLUSIONS

Traumatic back pain is the result of numerous causes which can be analyzed only when we possess a very complete knowledge of the anatomy, physiology and pathology of the spine. The analysis is made simpler by the visualization of the spine as a single joint subject to all the ills to which other joints are heir.

Chronic back pain may be avoided by the immediate radical treatment, through complete rest, of all acute back injuries. The treatment accorded the sprained ankle should be accorded the sprained back.

Compression fractures of the spine can and should be perfectly corrected and should heal without permanent disability.

Chronic backache resulting from minor postural traumata or from repeated major injuries, is most difficult to treat, but may often be cured by a combination of psychotherapy and the principles of rest and physiotherapy which we apply to other chronically damaged joints.

THE CURRICULUM OF MY HOPES*

HENRY J. VANDEN BERG, M.D., F.A.C.S.
GRAND RAPIDS, MICHIGAN

The practice of medicine dates back to the time of the most primitive peoples. The evolution has been one of gradual progression, receiving a boost here and there by such outstanding men as Hippocrates, Boerhaave, Lord Lister, Pasteur, Morton, Banting, and many others.

Practical clinical instruction in an organized way was instituted in the University of Leyden in the Netherlands in 1630, three hundred years ago. For seventy-five years the new plan did not prove very effective because, no doubt, of the time honored custom and tradition of teaching medicine by the apprenticeship method. The new project needed the stimulus of the dynamic Boerhaave. Under his leadership the medical clinic of the University of Leyden became rapidly the most famous in the world. His ideas were soon carried by his pupils to such centers as Edinburgh, Vienna, Berlin and Paris. Boerhaave, following Hippocrates, was the first outstanding master to make accurate clinical observations. He unconsciously practiced scientific medicine, and along with being a great physician he was also an inspiring teacher.

The first medical school in this country was established in Philadelphia in 1757, one hundred and sixty-five years ago. Before the close of the century three others—the College of New York, in 1768, the Medical department of Harvard College, in 1783, and the Medical department of Dartmouth, in 1798—were organized. The ideals of these early schools were of the highest order. Their establishment marked, of course,

*Read before the Detroit Academy of Surgery, November 10, 1932.

the beginning of the decline of the apprenticeship system in this country.

The medical department of the University of Michigan was organized eighty-two years ago (1850). Two years before its establishment the writer's grandfather, then a young man and a recent graduate in medicine from the school of Boerhaave fame, came to Western Michigan and for fifteen or twenty-five years was a preceptor. The apprenticeship method of teaching remained in vogue in Michigan for twenty-five years or so after the medical department of the University was opened. The reason for this was the same as that which obtained in the Netherlands. The establishment of medical schools progressed from the East to the middle states and westward with the expansion of the country. It was in fact for a time as rapid as the expansion of the country. The organization of medical schools seemed to become the vogue—for instance, in the century following the organization of the four schools in the East above referred to, the United States and Canada produced 457 medical schools. This number was far in excess of the needs of the country. About two-thirds of the institutions were in reality enterprises and not medical schools. They were private ventures, money making in spirit and object. They were so-called diploma mills, and, as might be expected, their existence was rather short lived. The inferior schools are now pretty well eliminated and the schools remaining are on the whole very good.

Because we have been compelled to come up to a certain standard the percentage of well trained men sent out in the past few years is large, and the country is therefore gradually getting better doctors. *As good as they are, they could be better,* and this without cost of more time or greater effort on the part of the student. Weak spots, if such exist in medical training, will be evidenced by the shortcomings of the finished product—namely, the doctor. In the opinion of the writer, who has made his observations from the standpoint of the practicing physician, and not from the standpoint of the teacher, the outstanding deficiency of the young man just graduated is his lack of understanding of human beings—the very people he has chosen to serve and has been training to advise and treat. Not understanding human beings means, of course, that he does not understand the emotional side of human beings, the functional disorders, the neuroses. These conditions, which are for the most part not based on disease, constitute the majority of all complaints and ailments of man. They have been aptly called the great-tormentor-of-man.

The young practitioner seems to know lamentably little of normal individuals and their normal reactions. He gives little thought and consideration to the kind of individual he is dealing with—what type of constitution he is to appraise. What type of mind has the patient? Is he of an even or calm temperament, or is he of a nervous temperament? The robust individual is, for example, usually calm and composed, and he has therefore a stable and even temperament, and is not inclined to worry. Living, therefore, is easier for him. If he goes to a physician with complaints one can be reasonably certain that the complaints are based on real disease. He, therefore, offers much less of a problem than the frailer type, who has usually a more sensitive nervous and mental make-up to parallel it. He is quick in his mental reactions and fast in his physical responses. He is ambitious—as a rule more so than his larger and stronger brothers—but he has not their endurance. The various conflicts, domestic, social, economic, sexual and so on, hit him harder because his receiving apparatus is more delicate and sensitive. It is this sensitivity and his ambition that drive him to go beyond his strength with resulting physical fatigue. Add worries to this and you may have also mental fatigue. The next step up from fatigue is aches and pains and abnormal sensations, and it is these complaints that seem to be so troublesome for the inexperienced and unsuspecting young physician to analyze correctly, since his conception of ailments is that they must represent disease. It does not occur to him that he is dealing with an individual who is simply out-of-gear and out-of-adjustment as it were. His study and deductions of such problems end too often in disappointment and discredit to himself and to the profession. At the same time he is of no assistance to the patient who seeks his aid. Because this frail, neurotic type of individual that is so useful to society and has so many excellent qualities is so little understood, the members of it are the most maltreated of any; they are kept

ill; they are unnecessarily operated upon. It is they whom we ourselves drive out of our hands into the hands of those who have not been trained to diagnose disease, but only to exploit a method of treatment.

Each one of us here sees examples almost daily of this poorly understood type of human being. I was recently called to see such a patient, a young woman, who had been bed-ridden for a few weeks featuring bladder symptoms. Extensive and elaborate study of her case had been made by two doctors—one a surgeon and the other a urologist, both seasoned clinicians, and both well trained in their specialty, but the patient stated that they had given up her case in despair. It did not take long to determine that the patient's symptoms were not caused by disease, but that they were expressions of physical and mental fatigue, principally the latter, the result of lack of harmony around her. It was only necessary from this point on to get her to understand cause and effect, and then to educate and so train the intelligence that it would enable her to control her anxiety.

I want to follow this story with one of a physician of whom I have seen a great deal for the past twenty-five years. He did not possess a great knowledge of medicine, but he was nevertheless a great physician. He understood people. He practiced the art of medicine. He had excellent judgment and knew his limitations. He would have made a correct appraisal, I believe very quickly, of the patient just referred to. He would have enlisted the aid of those who in his opinion were best qualified to carry out certain well directed studies in order to rule out possible existing pathology. He managed his work well. He always practiced the Golden Rule. He was one of the old doctors who had a world of sympathy and understanding that healed broken spirits and brought new hope to discouraged hearts. When this splendid physician passed away a few months ago the entire countryside paid its last respects to him. All seemed in deep mourning, realizing that they had lost not only their physician, but also the friend who understood them.

Besides the lack of understanding of human beings there is in my opinion one other shortcoming of major importance that is outstanding in the young physician. I mean a knowledge of pathology. If we are turning out conscious materialists, as it were—that is, if all symptoms and complaints are thought to represent changes in cells or tissue structures—it is obvious that one should understand what he is interpreting. We fail again in this. I know that we do not make the most of our opportunities in the teaching of pathology, and more especially, for the clinician, of gross pathology. The student of medicine in this country can never become therefore as interested as he might and should be in this basic subject. He has not been taught to realize its importance. This is illustrated vividly in the lack of interest of the average doctor of the hospital staff in attending post mortem examinations in the hospital with which he is associated. He has not learned to realize that the post mortem table furnishes the greatest source of medical knowledge. The clinician, whether he be a medical man or a surgeon or whatever specialty he may be practicing, who has little knowledge of gross pathology is at a great disadvantage when matched with one who is so informed. Incidentally the post mortem table affords also an excellent opportunity for the repeated study of anatomy, especially of the organs of the chest and abdomen. The anatomy is, moreover, less cadaverous than that which is seen in the dissecting room. The surgeon must know anatomy to know where he is. He must be familiar with gross pathology to know what he is doing.

Pathology in the last analysis directs the practice of medicine and surgery. In Germany and Austria all the great physicians and surgeons have had long years in pathology before entering upon their clinical activities. It is this that has given to German and Austrian medicine and surgery its sound foundation. In the hospital of the University of Vienna all bodies go automatically to the pathological department for a post mortem examination. Following the autopsy the cases that have been studied by the students are again discussed in detail, matching the findings against the clinical data, comparing and evaluating the one with the other. I can think of nothing that can be taught in medicine that will bring to the young medical mind so vividly the whole matter of cause and effect as such a procedure. Our laws prohibit the use of post mortem material in the same measure as it is available in Germany and Austria. It is for

this reason that students must still go abroad to learn pathology under the best auspices, but I repeat that even the available post mortem material in this country is not used to the fullest extent.

It would be futile to attempt to review or discuss the entire subject of the medical curriculum. Volumes have been written upon it. If one were to elicit an opinion from a hundred men who had given the subject considerable thought, one would receive as many varied opinions, for the most part concerning detail. It might be interesting to note in passing that the general plan of curricula of today is essentially that proposed by the medical faculty of the University of Michigan in 1890 (forty-two years ago). It has naturally been improved and the method of teaching has also improved—mainly in that there is more individual training. Moreover, although not a part of the curriculum, the compulsory interneship of one year has become a state requirement, and has naturally added materially to the armamentarium of the young man who is starting out to practice medicine. The young man who is accepted today in our class "A" medical schools must have a literary degree or its equivalent, and he has probably majored in the basic sciences. More than that he must have behind him a good scholastic record. He must be serious minded, of sound character, possessed of fundamental honesty and of sufficient intelligence to master the medical curriculum. Thus our medical schools have excellent material to work with.

How is the curricculum, which has not been changed materially for forty-two years, to be substantially improved? I have already discussed the deficiencies that are basic, in my opinion—namely, on the side of the art of medicine, the lack of understanding of the patient himself, and on the materialistic or scientific side, the deficiency in the teaching of gross pathology. I made the statement that this could be accomplished at no additional cost of time or effort on the part of the student. The teaching of gross pathology to the fullest extent will require, of course, more time than is now given to it, but not so much that it cannot be arranged for without loss to the student. Eliminate still more of the dry, didactic lectures, lay less stress on how much Dextro-maltose there should be in the food of a four months old baby with brown eyes, or on the name and description of the best apparatus to be used in a certain orthopedic condition. Such inconsequential things are easy to learn, but fortunately much more easily forgotten. It does not even attract the mind as does anatomy, which is more difficult, but still a possible memorizing feat.

Nothing needs to be eliminated for the sake of teaching a better understanding of the patient himself. *It must be done constantly by each and every teacher or instructor of clinical medicine.* The student must be bombarded with its importance from all angles, equally as much and in the same manner as he is now for the most part bombarded from all sides with the belief that all he is dealing with is disease. He must be taught that while he cannot be expected to know all about his patient's disease, he must know all about the patient himself. Some of our instructors do teach the very thing I am advocating. They are usually the ones who by instinct understand people, but you must agree with me that this instruction is done in an individual manner only. In practice, too, only an occasional physician shows that he has the inherent quality of understanding people. To those who are so fortunate as to have this quality the emphasis I advocate in the teaching of medical students is not so important perhaps. Nevertheless, it will be helpful even to them. But I am sure that the less fortunate, who constitute the great majority, can be impressed with the fact that the function of the doctor is the rendering of a personal service to real human being with minds as well as flesh and bones. It may have flashed through your minds that we have departments of neurology and psychiatry where neurological disturbances and mental abnormalities are taught to the fullest extent. The fact remains that about the only teaching the young man receives in these departments concerns extreme and gross disorders. In consequence he comes away still a conscious materialist. *If this instruction is to be given in an organized way it must be made a part of the policy of the teaching institution, dictated by the dean or governing body.* It is obvious that in order that such a plan may be really effective a man selected for teaching clinical medicine must possess a sympathetic understanding of human beings so that he

may by example, perhaps unconsciously, impart its significance and in his teaching emphasize its importance.

The best medical schools cannot, of course, turn out finished doctors. Only long and varied experience ever does that. But a school must aim to give a well-rounded-out and a well-balanced training so that its graduates may from the very start be able, with an adequately trained intelligence, to meet all the ordinary problems that may confront them.

The curriculum of my hopes, then, is one that will avoid the narrow teaching of students to function solely as skillful technical machines. Such medical graduates will leave their schools lacking the most desirable attitude of mind towards medical problems and without an equally desirable interest in the humanistic side of medicine. To accomplish the desired end it is necessary, I believe, to impress the students' minds very decidedly with the great importance of understanding their patients as human beings and of all that goes with such an understanding. I would also like to see pathology, especially gross pathology, taught to the greatest possible extent. When this is done the country will be getting still better physicians.

NEGLECTED DRUGS*

D. W. FENTON, M.D.
READING, MICHIGAN

In the flood of new agents constantly forced into our notice by manufacturing firms and often with over-enthusiastic claims in regard to their merits, we are often at a loss to know what drug to use, even in well known ailments. Therefore, without trying to discredit the new discoveries in the field of therapeutics, I am going to call to your attention some of the time tested and proven drugs that are often neglected among the mass of new candidates for favor.

The conquest of malaria at Havana during and following the Spanish-American War, was hailed—and rightly so—as one of the greatest advances in medical science, since the days of Pasteur and Koch. For prevention is ever better than cure and usually more difficult.

But until the means of prevention are found, much can be—much has been—done in curing disease that has actually attacked mankind. Much of the fairest portion of the peninsula of Italy has, until comparatively recent times, been abandoned by reason of the pest of malaria; and some students of history hold that the downfall of many of the nations of the past was caused more by this "pestilence that walketh in darkness" than by the swords of their enemies.

In 1639, the Countess of Cinchon, wife of the Viceroy of Peru, was cured of this infection by the bark of a mountain tree of that country. Later, it was carried to Rome by the Jesuit missionaries and gave a new lease of life to millions of the people of Europe.

It soon found its way to England and we find an apothecary of that country, one Talbot, exploiting it as a secret nostrum; with such success, we are told, that Louis 14th of France bought the secret of him for France, at a great price. In 1678 Talbot was made Physician In Ordinary to the queen of England, by reason of his supposed discovery.

From that time until the time of the Spanish-American war, Peruvian bark and its alkaloids were the principal defense against malaria. They have made habitable many parts of the tropics that would have been closed to the white race without them. Millions, during the malarial time, in the early settlement of this country, have been kept in fair health, by the protection given by these agents, instead of a chronic invalidism, or death.

So much for quinine in malaria—but is this its only, or now even its principal, use? In early times the answer to this question must undoubtedly have been in the affirmative. But added experience has shown many other uses for Peruvian bark and its alkaloids. As a germicide capable of entering the blood stream and following up and kill-

*Read before the annual meeting of the Hillsdale County Medical Society, January, 1933.

ing the plasmodium of malaria, it would seem that it should be, and is, able to destroy other germs as well.

I was surprised not so long ago to hear a prominent physician say—"I don't know that I have prescribed a dose of quinine in twenty years." To which another responded —"I never carry it in my case any more."

To those of us who have passed through the former malarial days, such a statement seems almost unbelievable. Fifty and even thirty years ago, malaria was still with us; and in other forms of disease, notably typhoid, it formed a sinister complication, the patient suffering from both infections at the same time. In nearly every case of apparent typhoid, it was necessary to eliminate the suspicion of malarial infection, by the administration of quinine. In addition to antimalarial effect, it seems to have power to destroy or inhibit the activity of many other micro-organisms, as the ameba of dysentery, the germs producing the common cold and probably the whole series of those causing the various forms of influenza, and no doubt the pneumococcus. Hare says that quinine greatly increases the phagocytic power of leukocytes though inhibiting their migration from the blood vessels, but not interfering with their migration after their escape therefrom. It is said also, that quinine in large and repeated doses is one of the best remedies in the treatment of Asiatic cholera; undoubtedly from its germicidal action on the contents of the intestines.

In my own personal experience, this drug has seemed to be almost as much of a specific in the various forms of influenza as in malaria. During the severe epidemic of influenza, in 1918, I was in Baltimore. I was informed by certain doctors there at that time that the appalling death rate at Ft. McHenry promptly fell off 50 to 75 per cent, when, in desperation, the doctors discarded their former treatment and changed to quinine and alcohol. In my own practice I have used quinine not with alcohol, but with atropin or strychnia or both, to sustain the failing heart so profoundly affected by the poison of influenza. In all cases the heart *must* be guarded.

In doses of two to three grains, combined with minute doses of atropia every three or four hours, it is most effective against the "common cold," if employed early enough. It has also a prominent field of usefulness in some forms of hyperthyroidism or exophthalmic goiter, in which it seems to act as a specific, if administered in full doses of four or five grains every four hours. The hydrobromide is commonly used as less apt to produce headache and tinnitus aurium. It may be continued for weeks with no ill effects. Indeed, it is necessary to do so, if a permanent effect is to be secured. Its good effect is often greatly enhanced by the simultaneous administration of ergotine, one to two grains every four hours. The value of this form of treatment has been in many cases little short of marvelous, in my experience.

Quinine is eliminated by the kidneys and may be found in the urine and in this way is a valuable remedy in cystitis.

Finally, quinine, by increasing the flow of blood to the brain and spinal cord, acts as a most valuable stimulant and tonic, greatly relieving nearly all forms of neuralgic pain.

All these valuable properties should give it a prominent place in the armamentarium of every physician.

Valuable as it is, this drug is not without its disadvantages. In many people it causes most unpleasant tinnitus aurium and sometimes headache and temporary deafness. Severe attacks of urticaria are sometimes seen and occasional nausea.

Of course in meningitis and all congested conditions of the brain, it should be withheld on account of its tendency to produce cerebral congestion. However, its many forms of usefulness would seem to far outweigh its unfavorable properties.

ERGOT

Since the introduction of pituitrin, ergot seems to be little used in obstetric practice, but it still has an important place in other conditions. It is of great value in exophthalmic as well as simple goiter. It is valuable also in congested conditions of the uterus, as fibrosis, or in congestion of that organ with hemorrhage. In fact, it is useful in any hemorrhage of any form, as obstinate epistaxis, especially when given in conjunction with calcium chloride, using adrenalin locally at the bleeding point and hypodermically, while waiting for the slower ergot.

BELLADONNA AND HYOSCYAMUS

Another family of drug yielding plants is that of the solanaciæ and their alkaloids.

Best known perhaps of this family is belladonna and its alkaloid, atropine.

One of the most valuable of the uses of atropine is in minute doses of 1/600 to 1/300 of a grain in combination with quinine, the great tonic and germicide, as mentioned before, in the treatment of that pest of civilized life, the "common cold." Its germ is as yet unknown, but we know that it belongs to the filtrable viruses.

I wish to call attention to another member of this family of plants, the hyoscyamus or henbane. I am aware that it is held by some that its properties are similar to those of belladonna. But many years of experience have convinced me that the two drugs, while in many respects similar, are different. Although both are mydriatics, this action is much less marked in hyoscyamus, and less persistent. At the same time the sedative and analgesic effects of hyoscyamus and its alkaloid, hyoscine, are more pronounced. Especially is this so in inflammations of the urinary tract and of the mucus membranes of the bronchi and throat, as in whooping cough, in early phthisis, and that following influenza. Owing to its mild toxicity it can be safely pushed in these troublesome cases and in combination with other drugs that may be needed, until the desired relief is obtained. Hyoscyamus seems to have almost a selective effect on the urinary tract and for this reason, in combination with agents that diminish the acidity of hyperacid urine, is of greatest value in cystitis. In many forms of neuritis it is very effectual with a prolonged influence.

ACETANILID

Acetanilid is a drug much discussed and of late years largely displaced by acetylsalicylic acid, mostly due, in my opinion, to blatant and persistent advertising, under the trade name of aspirin, which has become almost as much of a household remedy as alcohol was in the days of our grandparents.

Acetanilid was first introduced to the profession as "antifebrin," its use in lowering abnormal temperature being the principal one stressed.

But other, and long known antipyretic measures, as tepid or cool bathing, cold packs and so forth, are resuming their old place, as more permanent and less dangerous. So, "antifebrin" fell into comparative disuse as an antipyretic. At the same time its use as an analgesic became recognized, and it maintained its place in this field as a substitute for the more habit-forming opiates. It is a depressant to the heart, in toxic doses, and may cause death. Its most noticeable damage, however, is to the blood, causing it to become brownish red, diminishing the oxygen-bearing power of the corpuscles (Hare's Therapeutics). Thus it will be seen that acetanilid is by no means the harmless agent its exploiters would have us believe.

To sum up: Acetanilid is a valuable analgesic when administered not too long a time and always under the watchful eye of a physician and in the absence of serious disease of the heart or kidneys.

ECHINACEA ANGUSTIFOLIA

Echinacea augustifolia is a drug about which there is some controversy and which is not found in the most recent issue of the Pharmacopœia. But it has been credited with great power in counteracting the influence of germ poisons in the blood stream and in serpent venom. I have never had an opportunity to test it in the venom of serpents, but as a systemic germicide in septicemia in its various forms, it has given me such good results that my conscience will not allow me to keep silent in the light of that experience.

Like quinine, it seems to enter the blood stream and destroy or inhibit the action of septic germs of several kinds, most especially the bacillus Staphylococcus pyogenes albus and aureus, commonly responsible for the various forms of peritonitis, and for boils, carbuncles and infected wounds.

It has seemed to me to be almost selective in counteracting infections of the peritoneum, as puerperal sepsis and the infection of appendicitis.

Some years ago when we had more difficulty in getting patients to submit to an appendectomy than we do now, I have carried patients through to recovery with echinacea, when an operation seemed inevitable, but was stubbornly refused.

Obstinate furunculosis has also, with me, ended in prompt improvement and final cure, under full doses of echinacea.

The foregoing examples are only a few out of many that I might bring up, showing results, gratifying in all cases and surprising in many, in the use of this drug. Such is

my experience. Echinacea seems to have power to destroy infectious germs in the blood stream, or at least to inhibit their action, so as to render them harmless. It is well tolerated and seems to be non-toxic in medicinal doses and does not interfere with any other measures that may be used.

CREOSOTE CARBONATE

Creosote carbonate is a clear amber liquid about the consistency of thick syrup, insoluble in water, slightly soluble in alcohol. It has a faint flavor of creosote, but is entirely unirritating to the mucous membrane of the mouth or stomach. It may be given in capsule (capsule No. 0, full, every two hours or No. 00 every four hours) with plenty of water or as an emulsion with gum acacia; or it may be given with Lilly's cocoquinine as an emulsion with an equal quantity of water, when advisable, as it often is, especially with children. This form of treatment will usually abort a case of pneumonia, if taken soon after the onset of the disease, or at least cause it to end by lysis instead of by crisis. The congestion of the affected lung is promptly relieved, hemorrhage, if present, is stopped and consolidation of the lung does not take place.

GUAIACOL CARBONATE

Guaiacol carbonate has been neglected since tyhoid under better sanitation has been almost eliminated. But, outbreaks of typhoid still do occur and in such cases this valuable drug should not be forgotten, for its power as an intestinal antiseptic is as great as of yore. Also in tuberculosis it has seemed to me to be distinctly beneficial in relieving the tendency to stomachic fermentation and the resulting indigestion. While not discounting the good effects of rest and fresh air and diet, I feel that we should not neglect any measure that will aid in the conquest of this pestilence that is still with us and that often crops out where we least expect it. And it is here, in the incipient cases, so often mistaken for a continued cold or the result of influenza that we should neglect nothing that aids in restoring the patient to full health.

Guaiacol carbonate then is a valuable intestinal antiseptic in typhoid fever and other intestinal fermentations and toxic conditions and in tubercular indigestion. It has no unfavorable effect as yet reported, and can be used with any other desirable remedy.

BORIC ACID

Boric acid is mentioned but little except as a mild antiseptic in conjunctivitis, but having a wide range of usefulness wherever a non-irritating antiseptic is required. Thus, given orally, in doses of five to ten grains with abundant water, it is one of our best and most dependable remedies in cystitis, often giving prompt relief when almost all other remedies have failed. As an injection in these cases, its value is universally recognized and relied upon. And yet in all the works on therapeutics in my possession only two mention it otherwise than as an injection, and then only casually.

In gonorrhea it has a field not occupied by any other drug. The gonococcus is not so very hard to kill if we can get at it. Its tenacity of life is caused apparently by its hiding in the crypts and folds of the urinary tract, where our remedies fail to reach it. In beginning gonorrhea, a saturated solution of C. P. boric acid used as an injection, one or two drams at a time with five to ten minims of tincture opii in each injection every two to four hours, retaining it in position as long as possible, will often allay at once all of the irritation. Such a solution used as soon as the infection is discovered will usually promptly relieve the distress and hold it in check until the usual remedies can do their work. In fact, two or three prescriptions will frequently produce a complete clinical cure of the case. This result, of course, can only be secured by attacking the infection at once at the point of entry. When the trouble has been of longer standing the effects of this treatment are slower, but still give good results along with whatever systemic treatment is used.

I stress these points in regard to the use of boric acid in cystitis and gonorrhea because they are not discussed to any extent in the text-books, especially in the case of gonorrhea. In fact, I do not recall any mention of its use in this disease in this manner.

NITRO-HYDROCHLORIC ACID

In the more modern works on therapeutics nitro-hydrochloric acid is scarcely mentioned. But in Waring's Therapeutics of fifty years ago, we find it extensively dis-

cussed and recommended as a substitute for the more dangerous calomel in functional or catarrhal diseases of the biliary passages. Here again I may, perhaps, be permitted to give my own experience. I have used it almost continually, where other men would use calomel, in functional disease of the liver, with almost universal success. This beneficial effect from nitro-hydrochloric acid I do not attempt to explain. Possibly it passes in part unchanged from the stomach into the duodenum and by its presence there and in contact with the opening of the biliary duct, stimulates the liver to action. It should be taken very largely diluted with water and followed by a copious draft of water. The patient should immediately rinse the mouth with a solution of sodium bicarbonate, as a protection to the teeth. Dilute nitro-hydrochloric acid acts usually as a mild laxative and seems to aid in stomach as well as intestinal digestion. The improvement in intestinal digestion is, no doubt, caused by the increased flow of bile into the intestines. This is the most marked effect of the drug, and has brought relief where operation for gall stone was urged by surgically minded physicians. All these good results often repeated have made me feel that nitro-hydrochloric acid should not be dropped from our works on therapeutics. I may mention that Hare's Therapeutics enlarges upon the value of this acid as a chologogue and in intestinal indigestion.

In conclusion, let me say that I am by no means disposed to discredit the advances that are daily being made in medical science. But new things are not necessarily valuable because they are new. They must be evaluated by experience, just as the older discoveries have been. In many cases they will be found valueless or to have harmful results and so are foredoomed to be cast into the discard. But here and there in the mass of chaff we ever and anon find a grain of wheat to be added to the true and proven science of Medicine. While we hold an open mind for all things new, let us not neglect the old and tried agents that have served us so well in the past.

THE ASTHMATIC CHILD*

SAMUEL J. LEVIN, M.D.†
DETROIT, MICHIGAN

The diagnosis and treatment of asthma in children require the utmost diligence and persistence if this large group of patients is to receive the benefits of the recent advances in medicine which have solved many of the intricacies of this disease.

Asthma is characterized by attacks of dyspnea with expiratory difficulty and wheezing râles on expiration over the entire chest. The attacks may last hours or days, and tend to recur. They are characteristically relieved by adrenalin injections.

The latter is an important point in excluding other conditions producing wheezing. These are enlarged thymus, mediastinal cysts and new growths, enlarged hilus glands (usually tuberculous), foreign bodies, laryngeal polyps and congenital laryngeal anomalies, and tracheo-bronchial diphtheria. Cardiac asthma is a rarity in childhood. It must be remembered that "asthmatoid" breathing may occur in conditions other than asthma and must be definitely differentiated. These conditions can generally be ruled out by the clinical history and examination, x-ray films of the chest, laryngoscopic and bronchoscopic examination and by the positive diagnosis of asthma based on the following criteria.

These criteria apply equally to all allergic disturbances.

1. A history of recurrent typical attacks.
2. A personal history of some other allergic disturbance, such as hay-fever, urticaria, eczema, etc.
3. The family history of allergy variously

*From the Detroit Polyclinic.

†Dr. Samuel J. Levin obtained the degree of M.D., University of Toronto, 1923. He was Intern and Resident, Department of Pediatrics, University of Michigan Hospital, 1923-1925; Pediatric Resident, Mount Sinai Hospital, New York, 1925-1926; Instructor Pediatrics, University of Michigan, 1926-1927; Instructor Pediatrics, Detroit College of Medicine and Surgery, since 1927. He is in charge of the Children's Allergy Clinic of the Women's Hospital and a member of the Attending Staff of the Children's Hospital and North End Clinic, Detroit. Dr. Levin is in charge of the Departments of Pediatrics and Allergy at the Detroit Polyclinic.

reported as from 50 to 80 per cent positive in asthma.

4. An eosinophilia of from 3 to 20 per cent during attacks.

5. The presence of large numbers of eosinophiles in the sputum. (Similarly found in the secretions of nasal allergies.)

6. There may be a history of a definite association with a foreign substance such as a food or an inhalant, the removal of which causes a cessation of the symptoms.

The difficulties which beset the worker in this field manifest themselves when a search for the etiological factors is undertaken. A careful history of the attacks, relation to season, foods, environmental factors and acute infections must be carefully worked out.

A routine investigation of the asthmatic child should include, in addition to the history, a careful physical examination, complete and often repeated skin tests, tuberculin tests, urine and blood examinations, and in selected cases x-ray films of the chest and sinuses.

The physical condition of the asthmatic child is generally poor if the disease is at all severe or chronic. He is usually underweight and undersized. In a careful physical examination one should search for foci of infection and an attempt be made to evaluate the status of the tonsils, adenoids and sinuses. The rôle played by focal infection is most often secondary. Asthma should be looked upon as an explosive reaction. The child is "loaded" with some sensitizing agent or agents but may remain in a state of balance until something upsets his physiochemical equilibrium. He is like a loaded gun. An acute infection acts to pull the trigger, resulting in the explosive reaction. Other precipitating causes are exposure, changes in temperature, emotional upsets and contact with his specific sensitizing agent. When the etiology of asthma is approached in this manner, it is not necessary to classify our cases as allergic or infectious. In some cases the allergic factors are very evident. In others, especially those cases precipitated by acute upper respiratory infections, it seems that the infections are of paramount importance.

In all cases, complete skin testing is one of the most valuable diagnostic procedures. It should be emphasized that the skin tests are only one method of approach and there are limitations inherent in this method. These limitations are:

1. Some cases do not respond to the tests although clinically sensitive. A typical example is the case of pollen asthma, giving a history of asthma occurring each year at a definite pollinating season, in which the skin tests, both intradermal and scratch, may be negative. Occasional cases are even negative to the ocular tests. Yet these patients, when treated with mixtures of the pollens prevalent at the season during which their symptoms occur, are relieved.

2. Other patients may give positive tests to some allergens to which they are apparently not sensitive. These positive tests may indicate a past sensitivity. In some cases, however, they have been shown to precede clinical symptoms.

3. Skin tests may not be helpful unless the patient is tested for the allergens causing his symptoms. This necessitates very complete and repeated tests, including dusts from various sources, extracts of cosmetics, spices, etc. At present, complete testing means from 200 to 350 separate tests.

In carrying out the skin tests, the cutaneous tests have been found more practical for children. Delayed reactions are not uncommon, and for this reason readings should be made in fifteen minutes, four and twenty-four hours. Reactions in children are frequently faint and difficult of interpretation. A slight erythema may indicate an extremely significant etiological agent.

Intradermal tests are valuable when negative results are obtained with the scratch method. They are, however, much more difficult to perform in young children and infants, and are not entirely devoid of danger Severe reactions resembling anaphylactic shock have occurred following an intradermal injection in very sensitive patients. In some cases, due to its greater sensitivity, too many positive skin tests are obtained with the intradermal test. Delayed reactions occur also with the intradermal tests.

It has been pointed out that the scratch test is superior for detecting sensitization due to rabbit hair, horse dander, ragweed, cotton-seed, duck and goose feathers, cat and dog hair, mustard and egg-white. It has also been shown that the intradermal test is more efficient for house dust, chicken and chicken feathers, wheat and corn.

In cases where scratch tests are negative,

intradermal tests for the most important allergens should be done. Group tests are very unreliable. In a group of proteins as small as whole-wheat or whole milk, one frequently finds negative results for the whole substance, but a positive test for one of the constituent proteins. One may elicit a positive test for wheat-proteose and a negative test for whole wheat. In general the larger the group used, the greater the possibility of negative results.

A series of elimination or trial diets have been introduced as a method of determining food sensitivity. This method is by no means a short-cut, but is advantageous in cases in which tests are persistently negative. By means of these diets, eliminating, in turn, most of the common foods, sensitivity to definite items in the diet can be discovered by the improvement in symptoms following their removal. The disadvantages of this method are its applicability to food sensitivity only and the necessity of a prolonged period of observation on each of the restricted diets. The method has its use in selected cases which are apparently of food origin, provided the child's general condition is not sacrificed because of the strict dietary regime.

TREATMENT

In the treatment of the asthmatic child one of the most important steps is the removal from the child's diet or environment of the allergens to which he is sensitive. This is easily accomplished in many cases. In other cases where commmonly used foods such as wheat, milk or egg are involved, desensitization may be necessary, if substitutions cannot be made in the diet. In dust-sensitive cases the following procedure is advisable. The child should sleep in an uncarpeted room in which there are no drapes or hangings. The walls and furniture should be wiped clean frequently with mineral oil. The mattress should be enclosed in either rubber sheeting, oilcloth or heavy wrapping paper. The pillow should be either an air pillow or an ordinary pillow in a pillow slip made of rubber sheeting.

In cases due to inhalants such as animal or poultry dander, elimination of these offending substances is easily accomplished. The cases sensitive to fabrics are more difficult to handle. When complete elimination or substitution of a fabric is impossible, desensitization may be necessary.

Desensitization is accomplished by the injection over a period of time of extracts of the offending substance. The initial doses are very small and gradually increased in the same manner as pollen injections. This method yields striking results in pollen asthma and is equally effective in food, dust and epidermal cases. The injections must be made cautiously and an attempt made to keep below the dosage sufficient to produce general reactions or even severe local reactions.

Specific treatment by desensitization and the elimination of substances to which the patient is sensitive constitute the most important therapeutic measures.

In addition to these procedures, some cases may require some form of non-specific therapy. The use of vaccines to combat the onset of upper respiratory infections is an important adjunctive measure. In those cases, especially where the sensitizing agent cannot be discovered, the elimination or the lessening of the frequency of "colds" usually lessens the frequency of the asthmatic attacks. It is in those cases that seem to be precipitated by upper respiratory infections that the use of vaccines is justified. In many cases in children in which the sputum can be obtained, autogenous vaccines have been successful where stock vaccines have failed. This naturally brings up the question of bacterial allergy. This is undoubtedly a possibility which remains to be proven. Some investigators are definitely convinced of this possibility, but the majority of workers in this field feel that the presence of the bacterial infection, wherever it may be, acts to upset the fine physiochemical balance of the patient and thereby precipitates an attack rather than through direct sensitization.

The attack on these foci of infection demands serious consideration and thoughtful judgment. A great deal of harm has been done to many allergic patients by promiscuous surgical procedures involving the sinuses and tonsils. The sinuses may be infected and give x-ray and clinical evidence of infection. Yet in the allergic patient it is more likely that the sinus disease is a secondary infection superimposed on an allergic edema of these structures, rather than the primary cause of the patient's asthma. Emphasis should be placed, therefore, on the conserva-

tive management of sinusitis in the allergic patient because of the amount of useless surgery that many of these patients are subjected to. Especially in children should the sinuses be treated conservatively, with a minimum amount of surgery. Autogenous vaccines have been helpful in clearing up infected sinuses, associated with allergy. In this type of case close collaboration with a rhinologist is essential.

The tonsils of the asthmatic child have been the object of enthusiastic attack, in the past, with sometimes disastrous results. It is not the intention of this paper to suggest that tonsils must never be removed from the asthmatic child. One should emphasize strongly, however, the importance of removing them when necessary only after careful study of the case and certainly only after the child is passed the first two or three years of his life. It is my impression that the too early removal of the tonsils allows upper respiratory infections to descend into the bronchial tree more easily. Certainly one sees, frequently enough, children with asthma who date their symptoms from shortly after tonsillectomy. Instead of frequent attacks of tonsillitis or bronchitis, they now have frequent attacks of asthma. The removal of adenoids and tonsils should be very cautiously approached in the child susceptible to attacks of bronchitis with slight wheezing, in other words allergic bronchitis. This type of case particularly is most liable to develop true asthma following tonsillectomy.

The histories of a number of patients seem to indicate that hay-fever or pollen asthma may follow tonsillectomy, when this operation is performed during the pollinating season. For this reason it is advisable to perform this operation in children in the winter or late fall, if there is any family history or personal history of allergy.

In the frankly asthmatic child with badly infected tonsils and frequent upper respiratory infections the tonsils should be removed, if the child is past four or five years.

The removal of the adenoids is indicated in any allergic child whenever the symptoms of enlarged adenoids warrant this procedure. No harm seems to result from adenoidectomy alone, at any age. Bronchoscopy and bronchoscopic drainage is rarely a useful or justifiable procedure except in cases complicated by bronchiectasis, or in the rare cases presenting evidence of a plugged bronchus.

The use of x-ray therapy is valuable in cases of asthma with enlarged non-tuberculous hilus glands or infiltration of the bronchial tree. The x-ray probably acts to wipe out infection in these areas, although there is also a possibility that the x-rays have a non-specific foreign protein effect. Foreign protein therapy is useful in cases not responding to other means. Typhoid vaccine, autoclaved milk, nuclein and peptone have all been used with varying degrees of success.

The drugs of value in asthma in children are few. Adrenalin in doses of 5 to 8 minims is the treatment of choice for acute attacks. Atropine is decidedly useful in doses of 1/200 to 1/500 grain. Ephedrine has been a disappointment in children because of its tendency to produce untoward gastric symptoms such a vomiting and cramps. When given, doses of 1/8 to 1/4 grain are more likely to be tolerated than the usually recommended larger doses. The opiates should be used very cautiously, if at all. Most deaths reported in asthma have occurred when morphine or codeine have been used for acute attacks. This is as true of children as of adults. The slowing of the respiratory rate with a coincident depression of the cough reflex, produces a comfortable patient who is liable to suffocate due to the accumulation of thick tenacious secretion in his bronchial tree.

The treatment of the asthmatic child must include measures to elevate his general health, to increase his resistance against the disease and secondary bacterial infection. From the array of vitamin preparations available, it is now possible to give both A and D to asthmatic children who may be sensitive to the ordinary vehicles of these vitamins. The other vitamins must also be given in large amounts in a form to which no sensitivity exists. The source of these vitamin preparations must therefore be known before they are used in an allergic case. The diet should be high caloric and rich in fats, proteins, minerals (especially calcium and phosphorus) and vitamins.

NON-SPECIFIC URETHRITIS IN THE FEMALE: ITS COMPLICATIONS AND SEQUELÆ*

REED M. NESBIT, M.D.†
ANN ARBOR, MICHIGAN

Non-specific urethritis in the female is a relatively common infection. The complications and sequelæ, both immediate and late, constitute an important group of conditions that are becoming more and more widely understood and appreciated. The colon bacillus is the commonest invader of the urethra although cocci are sometimes responsible. The exact mechanism of infection has not been definitely proven but trauma doubtless plays an important rôle. Several factors would tend to emphasize this mode of infection. First, the anatomical relationships of the female urethra: It is a short urinary passage lined with mucous membrane and having a large lumen. The meatus lies within the protective covering of the genitalia in a situation that is bacteriologically unclean. The trauma incident upon sexual contact is doubtless of etiological importance. Infections of this type are invariably seen in young females who are sexually active, particularly during the early years of sexual life. Accurate histories generally reveal a very recent sexual contact as a probable source of trauma.

Catheterization is another common mode of infection of the female urethra. This appears to be particularly true in children and young adults. The importance of such urethral infections and their sequelæ should emphasize the importance of a very careful and aseptic technic of catheterization. The meatus should be cleansed with green soap solution followed by an antiseptic such as mercurochrome or acriflavine. Following catheterization an instillation of some suitable antiseptic into the bladder should always be made. Mercurochrome 1 per cent, acriflavine 1:1000, argyrol 12 per cent, protargol ¼ per cent are drugs that can so be employed.

The onset of non-specific urethritis is generally productive of very few symptoms that lead the patient to her physician. A slight amount of irritation giving burning on micturition may be the sole symptom at the onset. Upon examination at this stage one sees a slight inflammation of the urethral meatus and by digital pressure a drop of pus can be expressed from the urethra. With an advance of the inflammatory process up the short urethra the symptoms of irritation increase. Commonly the infection reaches the bladder within 24 hours. It is then that the symptoms become so severe and alarming to the patient that she consults her physician. Terrific bladder irritation with frequency, burning and painful urination are the rule. The pain is characteristically at the end of micturition and due to terminal spasm. Its severity occasionally demands narcotics for relief. During the early stages of the bladder involvement, gross hematuria is common. The regularity of bladder involvement in urethritis might properly lead one to term this clinical entity urethrocystitis. It is commonly recognized as cystitis.

The course of the disease is characteristically a stormy one. It is of interest that this condition rarely has an associated fever, although a slight leukocytosis may occur. The catheterized urine shows many red and white blood cells and organisms. The severe bladder irritation generally persists for five to ten days, then gradually subsides, leaving the patient free from symptoms in three or four weeks. Recrudescences of short duration may be expected to occur for several weeks or even months.

The treatment during the acute phase should consist of complete bed rest with forcing of fluids to the extent of at least four liters of fluid a day. The use of orally administered medications has been advocated. Helmholz[1] has pointed out that a highly acid urine (Ph. of 5 or lower) tends to relieve bladder irritation where produced by the colon bacillus group, and further that these organisms are definitely retarded in their growth by such degrees of acidity. Ammonium chloride or nitrate are the most satisfactory drugs that can be used for this purpose. Urotropin when administered in

*From the Department of Surgery, University of Michigan. Read before the Detroit Obstetrical and Gynecological Society, April 4, 1933.

†Dr. Reed M. Nesbit graduated from Stanford Medical School in 1924. He is a member of the Division of Surgery at the University of Michigan, having the rank of Associate Professor. He specializes in Urology, and is in charge of the Department of Genito-Urinary Surgery at the University Hospital.

the presence of a highly acid urine appears to have definite bacteriocidal action. However, its bacteriocidal effect is dependent upon the liberation of formaldehyde in the urine, and one might properly object to the use of such a drug on the grounds that it is capable of further irritating a bladder that is highly inflamed. Lavage of the bladder with boric solution introduced through a soft rubber catheter followed by instillation of such medications as the colloidal silver preparations, acriflavine or mercurochrome has proven beneficial.

Pyelitis is a complication that occurs frequently. This can occur at any time during the course of the disease. The exact mechanism of this extension is not definitely known. However, the researches of Helmholz[5] would seem to indicate the ascending rather than the hematogenous route. In this regard it is of interest to note that kidney involvement is frequently unilateral.

The onset of pyelitis is abrupt, with pain and tenderness in the kidney region. There is a chill at the onset. High fever is the rule. The leukocyte count is commonly above 15,000. In the absence of obstructive lesions along the course of the ureter, these renal infections generally subside within a few days when properly treated.

No doubt many of these acute urethral infections fail completely to subside, remaining quiescent for years. The researches of Folsom[2] have pointed out the fact that glands situated along the floor of the female urethra in its posterior third offer a fertile soil for the perpetuation of infection. He has amply demonstrated the relationship of these glandular structures to the chronicity of urethral infections, and has shown that such foci may remain asymptomatic for long periods of time. These latent foci may undergo pathological changes of several types which produce distinct clinical pictures and demand careful diagnosis and treatment.

Probably the most common of these changes is stricture, which characteristically occurs in the middle aged female. Gonorrheal stricture tends to appear at an earlier age. Stevens[7] was one of the first to point out the importance of this lesion. It produces frequency and burning, and has commonly no associated abnormality of the urine. This lesion is as readily diagnosed in the female as in the male. The symptoms arising from stricture disappear promptly upon adequate urethral dilatation.

Another abnormality which may occur is the development of very marked inflammatory changes of the mucous membrane covering the posterior half of the urethra.[2, 3] Definite areas of granulation tissue occur which eventually fibrose and become covered with epithelium. These appear as polypoid masses on urethroscopic examination. The symptoms of irritation produced by these changes are often very severe. The treatment here is directed at the inflammatory lesions by urethroscopic applications of weak caustics such as 1 per cent silver nitrate solution. Where this treatment fails to eradicate the lesions, they may be destroyed by high frequency desiccation through the medium of the urethroscope.

A rarer but no less important change which these glandular foci occasionally undergo is abscess formation.[6] These invariably occur along the floor of the urethra in its posterior third and may attain a considerable size but ordinarily are not over a few millimeters in diameter. They can be palpated by vaginal examination, and when so examined are generally found to be exquisitely tender though we have seen a few which showed no tenderness. On urethroscopic examination one can see pus exuding into the urethra where there is a patent opening. These paraurethral or suburethral abscesses produce great frequency, with pain on urination.

Two such cases seen at the University Hospital having very low grade infections had a sole complaint of dyspareunia. One patient having a very acute abscess of considerable size suffered urinary retention with overflow incontinence.

The treatment of paraurethral abscess consists of adequate drainage. This can in almost every instance be satisfactorily accomplished by intraurethral incision. Following intraurethral incision, the drainage can be facilitated by gentle massage per vagina during the postoperative convalescence.

Incision and drainage through the anterior vaginal wall is ill advised as it may result in urethro-vaginal fistula.

Another sequela of chronic urethritis is vesicle neck contracture producing urinary obstruction.[1] Here a fibrosis takes place at the extreme upper end of the urethra. As

would be expected this takes place at the posterior vesicle lip, the urethral glands being confined to the floor of the urethra. With contracture of this fibrous tissue the posterior vesicle lip loses its normal dependent curve, rising upward to form a definite bar identical to the inflammatory bars seen in the male. As in the male, this lesion produces typical obstructive symptoms. The diagnosis in the female, as in the male, requires three definite findings: Residual urine, bladder trabeculation, and a definite and distinct elevation of the posterior vesicle lip. Cystocele frequently produces a residual urine but is rarely accompanied by bladder wall trabeculation, and should not be confused with bar formation.

The diagnosis obviously can be made only by a complete cystoscopic and urethroscopic examination. Three such cases have been recently diagnosed at the University Hospital. A detailed account of them is being reported elsewhere.[6] The bar was excised in these cases by transurethral resection. In each instance the patient was able completely to empty the bladder with ease and freedom from symptoms following this simple procedure.

CONCLUSION

Non-specific infections of the urethra in the female are quite common.

The complications and sequelæ of these urethral infections constitute important clinical entities which should be recognized and adequately treated.

BIBLIOGRAPHY

1. Caulke, J. R.: Contracture of the vesicle neck in the female. J. of Urol., 6:5:341-348, 1921.
2. Folsom, A. I.: The female urethra: A clinical and pathologic study. J. A. M. A., 97:19:1345-1351, 1931.
3. Folsom, A. I.: The female urethra. Southern Med. J., 25:8:859, 1932.
4. Helmholz, Henry F.: The effectiveness of methenamine as a urinary antiseptic at various hydrogen-ion concentrations. J. of Pediatrics, 1:1:73-81 (July), 1932.
5. Helmholz, Henry F.: Spontaneous pyelitis. S. G. & O., 55:449-455, 1932.
6. Nesbit, R. M.: Vesicle neck contracture in the female with urinary obstruction. Urol. and Cut. Rev., 37:291-293 (May), 1933.
7. Pugh, W. S.: Stricture and urethral abscess in women. The Med. World. 48:334, 1930.
8. Stevens, W. E.: Diseases and abnormalities of the female urethra. Calif. and Western Med., 26:471-475 (April), 1927.

THE FEMALE URETHRA*

R. J. HUBBELL, M.D.†
KALAMAZOO, MICHIGAN

The female urethra is too often not seriously considered as a factor in urinary symptoms in women whereas on closer scrutiny it is found that a large number of the urinary complaints in women are due wholly or in part to some pathology of the urethra. Bugbee[2] found in a study of 1,000 cases complaining of frequency of urination that 690, or 69 per cent, exhibited lesions of the urethra that were partly or wholly responsible for the condition. Stevens[2] in a study of 234 consecutive cases found 74 per cent at least partly due to pathology in the urethra and in 24 per cent the urethra was entirely responsible.

This report is based on 64 consecutive cases of urinary complaint in women, not necessarily frequency of urination. I found the urethra to be at least partly responsible in 44 per cent and to be wholly responsible in 22 per cent of the cases. The percentage I found to be wholly responsible for their complaint compares equally with other authors, and it is quite probable that in a greater percentage than I found, the urethra is at least party responsible; but at any rate these figures help to impress us with the fact that the female urethra is something more than a simple exit for urine coming from the bladder and an avenue through which to pass a cystoscope.

ANATOMY

Briefly, the anatomy of the female urethra is quite simple as compared to the male. It is about 1.5 inches in length, runs obliquely forward and downward in a course that is slightly concave anteriorly. It is much more distensible than the male urethra, capable of being dilated to 30 or 40 F. The wall of the urethra is composed of muscular, submucous, and mucous coats. The muscular coat consists of a non-striated internal longitudinal, and an outer circular layer. Additional fibres at the vesical orifice form the involuntary sphincter of the bladder. Striated muscle fibres between the layers of the

*Read before the Detroit Urological Society, February 16, 1933.

†Dr. Hubbell is a graduate of Northwestern University, B.S., 1918; M.D., 1923. He served a two years' internship at Wesley Memorial Hospital, Chicago. After five years' general practice and one year of training in Philadelphia Dr. Hubbell is now limiting his practice to urology.

triangular ligament form the voluntary sphincter. The submucous coat contains loose areolar tissue and veins. The mucous coat is composed of stratified squamous epithelium except near the bladder, where it is transitional in type. The mucosa contains many small glands and lacunæ. Just within the meatus on the floor of the urethra, but sometimes found on either side of the meatus externally, are the orifices of Skene's glands that figure so prominently in acute and chronic purulent infections of the urethra.

The cases of my series in whom a urethral condition was alone responsible for the complaint fall under the following classification: (These cases do not include the acute Neisserian infection where, of course, the involvement of the urethra is all-important.)

CHRONIC URETHRITIS

This lesion is found in a large number of women who have a urinary complaint. The urethral meatus is constantly exposed to infection from the vagina and possibly the rectum and therefore it is a short route for infection to travel from these areas to the urethra. The posterior urethra and vesical neck are more often involved in this chronic process, probably because the voluntary sphincter prevents drainage externally, but the anterior urethra may also be involved. The infection is usually termed a "granular" or "polypoid" urethritis, depending on the appearance of the mucous membrane. Folsom[1] in a recent paper described a clinicopathologic study of chronic urethritis in the female wherein he reports finding what he claims to be definite glandular structures in the posterior urethra. He felt that there must be some reason for a persistent inflammatory reaction in the posterior urethra of these female patients as there is in the male. There was found to exist a definite glandular structure to these polypoid masses that are frequently seen in the urethra, and particularly around the vesical neck. On sectioning female urethras there were also found tubular glands lying beneath the surface of the mucosa in the posterior urethra.

On simple endoscopic examination of these patients the urethra, and particularly the posterior urethra, presents a uniformly reddened appearance dotted with several minute, raised, red papular areas. These are the pouting opening of inflamed mucosal glands and I would conjecture that they are the beginnings of more exuberant granulations that are sometimes seen. The magnified cystoscopic appearance is in general the same, but, near the vesical neck particularly, dilated, prominent vessels can be seen coursing longitudinally along the mucous membrane of the urethra and falling out of view in a curve over the vesical neck or continuing, to be lost in a network of similar vessels in the region of an inflamed trigone.

Small polypoid masses may be seen clinging to the mucous membrane, their paler appearance contrasting with the reddened urethra. And if in the region of the vesical neck, and attached by a long pedicle, they present an interesting sight protruding into the urethral lumen, weaving back and forth in the distended cavity.

An additional factor that strikes one in these chronically inflamed urethras, and which I have noticed many times, is that the urethra does not readily admit a normal sized sound but there seems to be constriction of the lumen that cannot be truly called a stricture. Instead of being able to pass a No. 24 or 26 F. instrument there is sometimes a great deal of discomfort on passing a No. 20 F. sound. This condition seems to be a spasmodic one and these patients often present the appearance of general hypertonicity of the whole perineum including the rectum and vagina as well as the urethra. There is often a purely mucoid discharge bathing the introitus that undoubtedly adds to the urethritis. These women frequently are of the high-strung, neurotic type who apparently are unable to effect a relaxed state of body or mind. Dilatation of the urethra in these cases gives relief but in my experience is very likely to recur because of the chronic hypertonicity of the parts involved.

Treatment of chronic urethritis may be instituted by using any one or all of the following procedures: (1) Dilatation with steel sounds or Kollman dilator up to 30 or 40 F. done twice a week and increasing one to two sizes French at each visit. (2) Medication to the urethra by instillation of argyrol 5-10 per cent, protargol 1-2 per cent, mercurochrome 0.5-1 per cent, or metaphen in oil 1:1000. Topical applications of silver nitrate may be used later from 4-75 per cent being made through the endoscope following dilatation of the urethra. This may be

done once a week with the weaker solutions and once every two weeks with the stronger solutions of silver nitrate. These topical applications may increase their discomfort temporarily but it usually subsides after two or three days.

If profuse granulation tissue is present or there is polypoid or papillomatous tissue present it will be necessary to resort to (3) fulguration with the diathermy current. This may be done through an endoscope or, preferably, through a water dilatation cystoscope.

Dilatation of the urethra alone is often responsible for great relief in these cases and, indeed, one such treatment given unwittingly may result in our not seeing the patient again because, as far as they are concerned, they are cured. We are all familiar with the fact that patients complaining of various pains associated with the urinary tract or even apparently not directly associated with it are often benefited after a simple cystoscopic examination. The only thing that has been done that could possibly be of any therapeutic value was to pass the cystoscope that undoubtedly dilated the urethra and opened up the ducts of some of these glands allowing their pent-up secretions to be drained away and thereby relieving the source of the inflammation. In passing it might be added that this same state of affairs can apparently be true of the ureter, for I had a woman referred to me complaining of burning on urination off and on since childhood which had become worse of late accompanied by pain in the right lumbar region. A cystoscopy was done with bilateral retrograde pyelograms and, although there was found a ptosis of both kidneys with B. coli infection in each side and slight dilatation of the left kidney pelvis, she never returned for further advice because she said she was cured of her trouble. In this case apparently the dilatation of the urethra caused by passing the cystoscope relieved the burning on urination and the improved drainage of the ureter obtained by passage of the ureteral catheters relieved the lumbar pain.

URETHRAL STRICTURE

True urethral stricture was found in two cases. In one only a filiform bougie was able to be passed and a No. 12 F. following bougie with difficulty. In the other case the calibre of the urethra was 14 F. In both of these cases the diurnal and nocturnal frequency of urination was marked. The latter case gave a history of "bladder trouble" ever since a Neisserian infection twenty-three years previously. Gonorrhea is similarly a factor in the formation of stricture in the female as well as the male. Trauma during childbirth from the child's head exerting pressure on the urethra against the pubic bone is necessarily a factor in some cases, but trauma from external causes as falling and striking on the perineum is conceivably not as great an exciting cause in the female as in the male because of the greater amount of urethra presenting itself in the perineum of the male.

Treatment consists in gradual dilatation of the urethra twice a week, increasing the calibre of the sound two sizes F. at each visit. There will probably be a residual chronic urethritis that will need treatment after the urethra is dilated to 30 or 40 F.

POLYPOID URETHRITIS

One case presenting polypoid masses in the posterior urethra was seen where the urethritis was the sole condition present. Folsom describes these urethral polyps as having a definite glandular structure microscopically and filled with a colloid material. I believe their destruction by fulguration with the diathermy current is the accepted method of treatment and if they are glandular in structure care must be taken to destroy the whole acinus or they would recur.

URETHRAL CARUNCLE

This pathology was found in four cases. They are usually seen as a dusky, strawberry shaped tumor protruding from the meatus and attached by a pedicle to the floor of the urethra an appreciable distance proximal to the meatus. They are extremely sensitive and the relief experienced on their removal is sometimes miraculous. Bipolar fulguration with the diathermy current may be used for their removal under general anesthesia or infiltration with novocaine. The base of the growth must be adequately destroyed or it will recur.

INFLAMMATORY BAR

In one patient a definite bar was visible on cystoscopy at the vesical neck resembling the median bar seen in the male. It appeared to be inflammatory and not fibrous in nature. This patient also had a markedly injected urethra and necrotic tags of mucous

membrane visible hanging from the surface of the posterior urethra. Treatment of the urethritis by gradual dilatation up to 30 F. and five local applications of silver nitrate to the urethra through the endoscope completely eliminated her urinary complaint of pain in the inguinal region on urination and frequency and burning. I recently had a patient who, on cystoscopy, showed a vesical orifice that appeared like one in a male with the prostate invading it in all quadrants. She also had a diverticulum of the bladder and a dilated ureter on the right side presumably due to the bladder neck obstruction.

It is interesting to speculate on these obstructions at the vesical neck in the female. Very little if anything is said in the textbooks or literature about this type of pathology. If it is conceded that there are numerous glands in the region of the posterior urethra and vesical neck in the female it seems reasonable to presume that chronic infection therein could produce inflammation and edema of the immediate vicinity, producing thereby a bar at the vesical neck if it were confined to the posterior surface of the vesical neck, or a concentric bladder obstruction if the process involved the posterior urethra in all quadrants.

SUMMARY

The urethra is too often neglected in consideration of the causes of urinary complaint in the female. Pathology in the urethra is at least partly responsible in a majority of cases and wholly responsible in about 25 per cent of patients seeking relief from a urinary complaint. The gross anatomy of the female urethra is quite simple but the clinical evidence of glandular structures in the region of the posterior urethra and vesical neck is clear. Treatment as outlined for the various conditions will always give relief and in the majority of instances will bring about a cure.

BIBLIOGRAPHY

1. Folsom, A. I.: The female urethra. J. A. M. A., 97: 1345 (Nov. 7), 1931.
2. Stevens, Wm. E.: The female urethra. Practise of Surgery—Dean Lewis, 1928, Vol. IX, Chap. XXV.

MASSIVE INTRA-ABDOMINAL HEMORRHAGE FROM RUPTURED GRAAFIAN FOLLICLE CYSTS*

HERBERT W. HEWITT, M.D., F.A.C.S., and
JOHN GEORGE SLEVIN, B.Sc., M.D.
DETROIT, MICHIGAN

When Novak,[14] in 1917, reviewed the literature and collected 40 cases of massive intra-abdominal hemorrhage from rupture of ovarian cysts, the profession began to realize that hemorrhage from ovarian cysts is an entity to be dealt with in differential diagnosis. This is evidenced by the fact that Johnson,[12] in 1930, added 37 cases to those of Novak, making the total 77.

We have found two other reported cases not included in either Johnson's or Novak's review of the literature, viz: one by Greenhill[9] and one by Olsen.[16] To these we desire to add one of our own, bringing the total number of collected cases to 80.

Primrose[18] mentions that severe hemorrhage from rupture of graafian follicle and corpus luteum cysts was recognized by Nelaton in 1851. Rokitansky, in 1855, and Puech, in 1858, also reported such cases. However, we agree with Phaneuf,[17] who states that "previous to 1900 the literature is not clear as to hemorrhage into the peritoneal cavity by ruptured follicular and corpus luteum cysts, and those resulting from extra-uterine pregnancy."

Greenhill, in a recent article, states that only the first two of his three cases were included in the total collection of 77. In the third case of his series the author made a diagnosis of incomplete abortion with a ruptured corpus luteum cyst of the left ovary or left sided ectopic pregnancy. At operation a normal left tube was found, also a left ovary which contained a ruptured corpus luteum cyst, from one point of which blood had escaped. The patient recovered following excision of the cyst.

The other case is that of Olsen's, reported in August, 1931. Here a diagnosis of right

*Read before the Wayne County Medical Society, November 1, 1932.

sided ruptured ectopic pregnancy was made. However, at operation the hemorrhage was found to arise from a ruptured ovarian cyst on the left side. Nearly one liter of fresh blood was found in the abdominal cavity. This patient recovered.

Our case history follows:

E. S., aged sixteen, female, white, student. Father living and well. Mother dead, 38, acute nephritis. One sister living and well. Past history was negative except for diseases of childhood. Menstrual history—menses began at twelve years, regular, four day type, moderate flow, slight dysmenorrhea. Last period two weeks before operation.

The patient was seen at her home by one of us on February 15, 1931, in consultation with her father, who is a physician. She had had pain in her lower abdomen especially in the right lower quadrant at times for the past two weeks. On the evening before operation, however, the pain became severe and was referred to the appendicular region. She had not vomited, and had had no other symptoms. On examination at her home, her temperature was 100 degrees F., pulse 90. Extreme tenderness with but little muscle tension was present over the appendix. No dullness could be elicited on percussion. Heart and lungs were negative; urinalysis also negative. Blood pressure 100/65. Patient was sent to Grace Hospital with a diagnosis of acute appendicitis, and prepared for operation. On arrival at the hospital, her temperature had reached 101-8/10 degrees F., and pulse 136 (10:30 A. M. Feb. 15, 1931). The increased rapidity of her pulse made us suspicious of intra-abdominal hemorrhage. Abdominal percussion immediately before operation revealed dullness in both flanks. Laparotomy was performed through a median subumbilical incision. The abdomen contained approximately 2 liters of fresh and clotted blood. A ruptured graafian follicle cyst of the right ovary was found to be responsible for the bleeding. The ovary was resected. The appendix was chronically diseased, and was removed.

Report of C. I. Owen, pathologist to Grace Hospital, is as follows:

Gross: "The specimen consists of appendix, a portion of ovary, and a large amount of blood clot. The appendix measures 7 x ½ cm. in size and exhibits no important gross change. The ovary, adjacent to the area of blood clot attachment, exhibits some proliferation of luteal cells. There is some infiltration of the ovarian tissue with the blood and some areas of organization have begun."

Diagnosis: "Hemorrhage from recently ruptured graafian follicle."

The patient was given a blood transfusion immediately after operation; but aside from post-operative shock, she made an uneventful recovery and was discharged from the hospital on the thirteenth day.

Our case history is typical of the majority of cases of this character. However, there are several differences. The pulse immediately before the operation was 136, which was much higher than that usually seen. This was indicative of the massive hemorrhage, which was found. In addition, there was dullness in both flanks, further suggesting free fluid in the abdomen.

The age, social status and lack of confirmatory evidence of pregnancy convinced us that this was not an extra-uterine gestation. If we had considered the possibility of hemorrhage from a ruptured ovarian cyst, a preoperative diagnosis of the true condition might have been made.

One reason for discussing this subject at length is to stress the importance of ovarian hemorrhage in differential diagnosis of acute abdominal conditions. Some observers maintain that these hemorrhages from ruptured cysts rarely happen. In our opinion more of these cases occur than is indicated by the few instances recorded. Certainly some are misdiagnosed even at operation; many others are never reported. This is an important pathological entity, and surgeons will do well to consider it when confronted with pelvic disease in young women with symptomatology and physical signs similar to the case above reported.

PATHOLOGY

Schumann[19] quotes Wolf as stating that hemorrhage of ovarian origin may be divided into three types: (1) interstitial, (2) follicular, (3) intra-follicular.

Novak believes that the original site of graafian follicle hemorrhage is in the perifollicular stroma and that it breaks into the follicle at a later stage.

Schumann claims that when a massive hemorrhage occurs from an ovary, some pathological process of the ovarian blood vessels, such as a degenerative arteritis, is usually found.

Johnson's theory concerning the etiology of this incident is that the bursting of the walls of the corpus luteum, brought on by a sudden hyperemia of the pelvic organs, might eventuate in a copious hemorrhage. This author disagrees with Schumann and believes that changes in the vessels alone do not satisfactorily explain the occurrence of hemorrhage. Graafian follicle bleeding, states Johnson, is due to premature separation of the ovum with hemorrhage and premature rupture of the follicle.

Feiner,[5] in the pathological report of one of his cases, remarks that a potent participating factor in the production of hemorrhage was the presence of a large number of blood sinuses immediately adjacent to and surrounding the corpus luteum.

ETIOLOGY

Traugott[20] disagrees with most observers concerning the admissible causes of severe

bleeding from the ovary. He declares that such hemorrhages occur only in leukemia, phosphorus poisoning, extensive burns, hemorrhagic diathesis, hypertension, neoplasm and acute torsion. All other reported instances, he asserts, were probably overlooked extra-uterine pregnancies. However, the evidence in the literature contradicts Traugott's contention.

Trauma plays an etiological rôle in producing rupture of these cysts. Novak[15] quotes Von Beust as reporting nine cases in thirty-six where trauma was a causative factor. Primrose reports two cases. Johnson and Klein[13] each report a case occurring during coitus. Marshall and Greenhill each had a case where rupture followed bimanual examination. Six of fourteen cases tabulated by Johnson were complicated by appendicitis. The same author also found that ten cases occurred one week before, four one week after, one during, and three two weeks after the menses. Johnson discovered that the right ovary was involved fourteen times, the left ovary ten times, and both ovaries twice. A preoperative diagnosis of appendicitis was made thirteen times and of ruptured ectopic pregnancy ten times in twenty-six cases of ruptured ovarian cysts.

SYMPTOMATOLOGY

The symptom-complex most commonly seen reveals the picture of a young woman who experiences an attack of sudden, sharp pain, generalized over the abdomen or referred to the umbilicus. This pain later becomes localized to the right iliac fossa. There is nausea, frequently vomiting, and collapse. The symptoms of shock, however, are seldom as marked as in ruptured ectopic pregnancy.

Examination reveals a pallid, somewhat restless woman whose pulse may be rapid and whose temperature is normal or slightly elevated. There is tenderness localized to the right lower abdominal quadrant, but very seldom any marked rigidity. If an appreciable hemorrhage has occurred, dullness in the lower abdomen may be elicited upon percussion. Vaginal examination usually reveals a doughy mass and tenderness in the cul-de-sac.

Brakeley and Farr[4] analyzed the physical findings in thirteen cases of the type under discussion. They found tenderness present in the right lower quadrant eleven times; once it was generalized, and once the tenderness was present in the left lower quadrant. Five of their thirteen cases had muscular rigidity in the right lower quadrant. A high temperature was seldom encountered. The pulse range was from 76 to 126, depending upon the extent of the hemorrhage. Leukocyte counts, when taken, usually ranged between 10,000 and 16,000.

A review of these typical findings simplifies our task and enables us to agree with Beck[1] that "this diagnosis will always meet with difficulties, especially on the right side," and with Boss[3] that the diagnosis of necessity must be one of probability. And we must further concur with Finaly[6] that the differential diagnosis between the various clinical pictures is of less importance than the establishment of the proper indications for the performance of laparotomy.

Gruenstein[10] observes that periodical tubal colics, almost invariably *present* in abdominal pregnancy, are missing, and that no inflammatory symptoms are found as in appendicular disease.

In most cases reported, the physical signs are on the right side of the abdomen. Olsen,[16] Hadden[11] and several others mention instances where the pathology was in the *left* ovary, although the symptomatology was referred to the right side.

TREATMENT

Of the cases reviewed in the preparation of this paper, we find, with Block, that in two-thirds of them the ovary was removed, and in the majority of these the contiguous tube. Also, about one-sixth of the ovaries were resected, and in the other sixth simple suture of the rupture was performed.

Block[2] contends that these figures should be reversed by operators following the more conservative method of treatment, viz.: simple suture of the ruptured ovary.

We agree with Block in his demand for conservative treatment, but with reservations. It is a well established principle of surgery that as little tissue should be sacrificed as is consistent with ultimate recovery. We believe that in those cases where the hemorrhage is trivial or where nature already has formed a firm clot, simple suture of the ovary will suffice. But in the cases where the hemorrhage is copious and the rent in the ovary is large, resection is the preferable operative treatment. There is

little justification for the radical removal of the offending ovary and still less reason for the excision of a healthy tube. Where the hemorrhage has resulted in the loss of a liter or more of blood, immediate transfusion is advisable, which should be repeated as often as the condition warrants. Boss quotes Odermatt as having found that hemorrhage from a ruptured corpus luteum occurs in about one per cent of all cases diagnosed as acute appendicitis. Several instances are reported where the surgeon made a gridiron incision for an appendectomy only to find that the pathology was primarily in the ovary, and occasionally in the *left* ovary at that. Therefore, we believe that a low right rectus incision is the best means of approach and that, with rare exceptions, the gridiron incision should be abandoned in this type of case.

SUMMARY AND CONCLUSION

Rupture of an ovarian cyst as a cause of severe intra-abdominal hemorrhage should be an important consideration in the differential diagnosis of acute abdominal conditions, in young women. There is a diversity of opinion as to the etiology but it is apparent that trauma plays an important rôle. The symptoms are so easily confused with ruptured ectopic gestation and acute appendicitis that there is great difficulty in making a correct preoperative diagnosis. The treatment is invariably surgical and consists in either simple suture of the ovary or in a careful and conservative resection; practically never is complete oöphorectomy indicated.

BIBLIOGRAPHY

1. Beck, F.: Zentralbl. f. Gynäk., 50:2009-2012, 1926.
2. Block, F. B.: Am. J. Ob. Gyn., 19:102-106, 1930.
3. Boss, W.: Zentralbl. f. Chir., 64:2300-2301, 1927.
4. Brakeley and Farr: Am. J. Med. Sc., 172:580-585, 1926.
5. Feiner, David: Surg. Gyn. Ob., 42:671, 1926.
6. Finaly, R.: Nederland. Tijdsch. V. Geneesk, 75:1900-1904, 1931.
7. Frank, R. T.: Gyn. Ob. Monographs, D. Appleton & Co., 12, Ch. 3.
8. Graves, W. P.: Gynecology, W. B. Saunders Co., p. 409, 1923.
9. Greenhill, J. P.: Am. J. Ob. Gyn., 22:902-906, 1931.
10. Gruenstein: J. Med. Klin., 24:972-973, 1928.
11. Hadden, D.: Am. J. Obst. and Gyn., 7:600, 1924.
12. Johnson, V. E.: Am. J. Surg., 9:538-544, September, 1930.
13. Klein; Zentralbl. f. Gynäk., 50:111, 1926.
14. Novak, Emil: Bull. Johns Hopkins Hosp., 38:736, 1917.
15. Novak, Emil: J. Am. Assoc., 58:1160.
16. Olsen, C. W.: J. A. M. A., 97:391, August 8, 1931.
17. Phaneuf, L.: J. A. M. A., 83:658, 1924.
18. Primrose, A.: Ann. Surg., 56:125, 1912.
19. Schumann, E. A.: J. A. M. A., 77:692-696, 1921.
20. Traugott, M., Monatsschrift. für Geb. und Gynak., Berlin, 72:307, Mar., 1926.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner

LANSING, MICHIGAN

NEW LEGISLATION

New legislation of immense value to adopted children was enacted by the legislature of 1933. Heretofore, adopted children have had no means of procuring a birth certificate, the only record being that of the birth to the natural parents, in many cases illegitimate. To furnish such a certificate was, of course, of little or no value to the adopted child.

Under the new law, House Enrolled Act No. 98, the provision is made that all adoptions shall be filed with the State Department of Health, showing the child as the legal child of the foster parents, that this record shall be filed with the birth records of the state, and that certified copies thereof shall be prima facie evidence in all courts and places of the date and place of birth of the child. This will establish the child as the legal child of these foster parents, and the age and citizenship.

Such a certificate does not conceal the fact of adoption, and it seems to be a very decided step in advance.

Another provision of the same act is that all records of illegitimate births shall be filed directly with the State Department of Health and not with the local registrars. This will eliminate the possibility of a local record and unfortunate publicity and embarrassment.

These records of illegitimate births when received at the State Department of Health become closed records, are filed separately from the other birth records, and shall not be subject to public inspection nor copies thereof issued except upon order of a court of competent jurisdiction.

All physicians in the state should note this

provision of the law and, where they attend illegitimate births, send their certificate directly to the State Department of Health at Lansing, and not to the local registrar.

Another law, Senate Bill No. 160, provides that on the subsequent marriage of the parents of an illegitimate child, a new birth certificate may be substituted in the name of the father. Under the law, an illegitimate child, of course, takes the name of the mother, but upon receipt of satisfactory evidence of the subsequent marriage of the parents, a new certificate may be prepared in the name of the father and giving the child the father's name. This will relieve many unfortunate conditions and it seems a wise protection for the unfortunate child.

THE TREND OF DIPHTHERIA

Will we have an increase in the incidence of diphtheria next winter? During a season when diphtheria should normally be very much on the decline we find that recently it is actually on the increase. Diphtheria has been declining so steadily and so rapidly during the last few years that almost every month has established a new low record of incidence for the corresponding month during several years previous. During a period of more than two years this was so, until May of this year. In May there were 94 cases as compared to 45 of May, 1932. The number of cases in May of this year was greater than that for April, when there were 55 cases. During June there were reported 136 cases.

In analyzing the situation for June to learn where diphtheria is most prevalent we find that Detroit had 70 cases out of a total of 136. Fourteen cases were located in Genesee County outside of the city of Flint; 10 in Washtenaw County, principally patients in the University Hospital; and 12 in Kalamazoo city and Kalamazoo township. The other cases, few in number, were scattered, there being not more than three in any one locality. In Kalamazoo nearly all of the cases were of children of school age. In Detroit there were an unusual number of adults. For the most part the cases have been mild or of moderate severity, but in Detroit there were a number of fatalities and apparently the virulence of the disease is on the increase.

Physicians generally are requested to be on the alert and to inform the local health officer or the Michigan Department of Health promptly of any cases of diphtheria in their community and of any unusual circumstances. At this time of the year it is especially important, for usually we consider that the incidence of diphtheria is practically nil. We do not expect that the incidence of diphtheria will be very great during the summer months but the slight increase noted recently may be the forerunner of an increased incidence during the next diphtheria season, beginning after the first of the school year.

The general trend of diphtheria incidence appears to run in cycles of eight to fifteen years. The incidence has been declining since 1921. Right or wrong, we have given credit for much of this decline to active immunization. Perhaps next winter will bring the beginning of an upward trend and a cycle of increasing incidence in this disease. If this should be so, it will constitute a real test for immunization as a control measure.

CHILD HYGIENE NOTES

Oakland County is having a series of Women's classes, conducted by Dr. Ida Alexander. The average attendance each week is 350. Dr. Edna Walck is teaching a similar series of classes in Eaton County with an average attendance of 300.

The Infant Welfare Program carried on in Leelanau County by Julia Clock, R.N., is being completed. Work among children in Iron and Luce Counties will be started by Nell Lemmer, R.N., at the completion of her work in Gratiot County.

Bertha Cooper, R.N., is working among infants and young children in Clare County during the summer months, having completed a series of Child Care Classes and an Infant Welfare Program in Branch County.

Annette Fox, nursing director for the Upper Peninsula, is working with the county nurse in Ontonagon County, developing an Infant Welfare Program in that county.

OFFICIAL PROGRAM
113th Annual Meeting Michigan State Medical Society
September 11, 12, 13 and 14, 1933

OFFICIAL CALL

The Michigan State Medical Society will convene in annual session in Grand Rapids on September 11, 12, 13 and 14, 1933. The provisions of the Constitution and By-Laws and the official program will govern the deliberations.

J. Milton Robb, *President*
B. R. Corbus, *Chairman Council*
H. J. Pyle, *Speaker*

Attest:
F. C. Warnshuis, *Secretary*

DAILY SCHEDULE

Monday, Sept. 11—House of Delegates, 2 P. M.
Tuesday, Sept. 12—House of Delegates, 10 A. M.
Wednesday, Sept. 13—General Sessions. Section Meetings.
Thursday, Sept. 14—Sections Meetings. General Sessions.

MEETING PLACES

Pantlind Ball Room
House of Delegates
Civic Auditorium
Sections and General Sessions
Registration
Exhibits

HOTELS

Ample hotel accommodations are available at the Pantlind, Rowe and Morton Hotels.

The Pantlind Hotel is just across the street from the Civic Auditorium. Its rates are: $3.00 to $5.00 single and $5.00 to $10.00 double.

The Rowe Hotel is two short blocks from the Civic Auditorium. Its rates are: $2.25 to $3.50 single with bath and $3.50 to $6.00 double with bath.

The Morton Hotel is four blocks from the Civic Auditorium. Its rates are from $2.50 up.

ENTERTAINMENT

The Kent County Medical Society will entertain the Officers, Delegates and Members at a "Rhine Party" in the Pantlind Hotel on Tuesday evening, Sept. 12, at 9:30 P. M.

Golf privileges for Blythefield Country Club may be obtained at the Registration Desk.

Parking privileges stickers can be secured at the Registration Desk.

INFORMATION

House of Delegates meets in Pantlind Ball Room.
Section Meetings—Civic Auditorium.
Eye, Ear, Nose & Throat—Pantlind Ball Room.
General Meeting—Civic Auditorium.
Combined Section Meetings—Civic Auditorium.
Exhibits—Civic Auditorium.
Registration—Civic Auditorium.
Time—Daylight Saving.
Council Meeting—September 11, 12:00 M.

HOUSE OF DELEGATES

Speaker: Henry J. Pyle, M.D., Grand Rapids.
Vice-Speaker: C. E. Dutchess, M.D., Detroit.
Secretary: F. C. Warnshuis, M.D., Grand Rapids.

First Session

Monday, September 11, 1933, 2:00 P. M.

Ball Room—Pantlind Hotel

1. Call to Order.
2. Report of Credentials Committee.
3. Roll Call.
4. Speaker's Address.
5. President's Address.
6. President-Elect's Address.
7. Annual Report of Council.
8. Appointment of Reference Committees.
   (a) Council.
   (b) Society Affairs.
   (c) Miscellaneous Business.
   (d) Report of Committees
9. Report of Committee on Economics—W. H. Marshall, Chairman.
   This is a special order of business determined at the special meeting of July 12. Upon completion of this special order the House will proceed with the following order of business at hours to be determined at the close of each session.
10. Election of Nominating Committee.
    (a) To Nominate:
        1. One Delegate to A. M. A.
        2. Two Alternate Delegates to A. M. A.
        3. Place for Annual Meeting.
11. Committee Reports.
    1. Legislative.
    2. Civic and Industrial Relations.
    3. Woman's Auxiliary.
    4. Survey of Medical and Health Agencies.
    5. Radio Committee.
    6. Preventive Medicine.
    7. Delegates to A. M. A.
    8. Special Committees.
12. Resolutions and New Business.
13. Adjournment.

Second Session

1. Call to Order.
2. Roll Call.
3. Reference Committees.
   (a) Council
   (b) Miscellaneous Business
   (c) Society Affairs.
   (d) Reports of Committees.
4. Unfinished Business.
5. Resolutions and New Business.
6. Adjournment.

Third Session

1. Report of Credential Committee.
2. Roll Call.
3. Reports of Reference Committees.
4. Elections:
   1. President-Elect.
   2. Delegate to A. M. A.
      L. J. Hirschman—Term Expiring.
   3. Alternate A. M. A. Delegates.
      Carl F. Moll—Term Expiring.
      Henry E. Perry—Term Expiring.

4. Councilors.
   13th District—B. H. Van Leuvan—Term Expiring.
   14th District—J. D. Bruce—Term Expiring.
5. 1934 Meeting Place.
6. Speaker.
7. Vice-Speaker.
8. Unfinished Business.

SECTIONAL PROGRAMS

Surgery

Chairman: George J. Curry, Flint.
Secretary: Harold K. Shawan, Detroit.

First Session—Wednesday, Sept. 13, 1933
9:00 A. M.

1. "Abscess of the Lung"—Dr. John Alexander and Dr. Cameron H. Haight, Ann Arbor.
   Discussion—
   1. Dr. E. J. O'Brien, Detroit.
   2. Dr. William A. Hudson, Detroit.
2. "Pulmonary Complications following Anesthesia"—Dr. Clark Lemley, Detroit.
   Discussion—
   1. Dr. B. H. Van Leuven, Petoskey.
   2. Dr. W. A. Manthei, Lake Linden.
3. "A Discussion of Gall Bladder Disease and Its Management"—Dr. Henry J. Vanden Berg, Grand Rapids.
   Discussion—
   1. Dr. C. E. Boys, Kalamazoo.
   2. Dr. G. A. Seybold, Jackson.
4. "Thyroid Surgery in Southern Michigan as Affected by the Generalized Use of Iodized Salt"—Dr. Roy D. McClure, Detroit.
   Discussion—
   1. Dr. Simon Levin, Houghton.
   2. Dr. Frederick A. Coller, Ann Arbor.
5. "Clinical Abdominal Diagnosis"—Dr. T. G. Yeomans, St. Joseph.
   Discussion—
   1. Dr. Alex. J. MacKenzie, Port Huron.
   2. Dr. Julius H. Powers, Saginaw.
6. "End Results of Arthoplasty of the Hip"—Dr. Willis C. Campbell, Memphis, Tenn.
   Discussion—
   1. Dr. F. C. Kidner, Detroit.
   2. Dr. John T. Hodgen, Grand Rapids.

Second Session—Thursday, Sept. 14, 1933
9:00 A. M.

1. "Treatment of Peritonitis Associated with Appendicitis"—Dr. Frederick C. Coller and Dr. Eugene B. Potter, Ann Arbor.
   Discussion—
   1. Dr. Frederick C. Warnshuis, Grand Rapids.
   2. Dr. Earl I. Carr, Lansing.
2. "Surgery of the Diabetic Patient"—Dr. C. Fremont Vale, Detroit.
   Discussion—
   1. Dr. Richard M. McKean, Detroit.
   2. Dr. R. L. Mustard, Battle Creek.
3. "Injuries in and about the Ankle Joint"—Dr. Harry B. Knapp, Battle Creek.
   Discussion—
   1. Dr. Thomas V. Carney, Alma.
   2. Dr. R. W. McGregor, Flint.
4. "Changing Trends in the Treatment of Prostatic Obstruction." (Lantern slides)—Dr. Herman R. Kretschmer, Chicago, Ill.
   Discussion—
   1. Dr. H. W. Plaggemeyer, Detroit.
   2. Dr. Alvin Thompson, Flint.
5. "Carcinoma of the Breast"—Dr. Thomas E. Jones, Cleveland, Ohio.
   Discussion—
   1. Dr. Richard R. Smith, Grand Rapids.
   2. Dr. William E. Shackleton, Kalamazoo.

General Medicine

Chairman: I. W. Greene, Owosso.
Secretary: S. Merrill Wells, Jr., Grand Rapids.

First Session—Thursday, Sept. 13, 1933
9:15 A. M.

1. Chairman's Address—"The Unimportance of Being an Internist"—Dr. I. W. Greene, Owosso.
2. "Some Basic Principles in the Treatment of Cardiac Failure"—Dr. M. S. Chambers, Flint.
   Mention will be made of the heart as a physiological unit in a system of organs designed to transport oxygen and carbon dioxide to and from the tissues. The mechanism of cardiac failure will be briefly discussed. The various accepted methods of treatment will be reviewed, with special emphasis placed on the therapeutic rationale of these procedures.
   Discussion—
   1. Dr. Paul Barker, Ann Arbor.
   2. Dr. Norman Clark, Detroit.
3. "Resocialization Following Modern Therapeutic Measures for the Treatment of Paralytic Dementia"—Dr. P. V. Wagley, Pontiac.
   Discussion—
   1. Dr. R. A. Morter, Kalamazoo.
   2. Dr. P. R. Sheets, Traverse City.
4. "Functional Disturbances of the Colon" (Illustrated by lantern slides)—Dr. E. L. Eggleston, Battle Creek.
   An appreciation of functional disturbances of the colon has been called to the attention of the profession by numerous observers; nevertheless, a better understanding of the function of the sympathetic and parasympathetic nervous innervation is desirable.
   Psychic disturbances are undoubtedly of great importance in producing an instability of the innervation of the colon.
   A brief review of certain cases specifically illustrating functional disturbances.
   Discussion—
   1. Dr. J. G. Mateer, Detroit
   2. Dr. J. B. Jackson, Kalamazoo.
5. "Medical Participation in Public Health"—Dr. Henry F. Vaughan, Detroit.

Second Session—Thursday, Sept. 14, 1933

1. "Subacute Bacterial Endocarditis"—Dr. Frank N. Wilson, Ann Arbor.
   Discussion—
   1. Dr. W. H. Marshall, Flint.
   2. Dr. E. D. Spaulding, Detroit.
2. "Primary Cancer of the Bronchus and Lung"—Dr. Willard D. Mayer, Detroit.
   The paper consists of a description of the symptoms, pathology and physical signs of primary cancer of the bronchus and lung. The marked variation in symptomatology and physical signs is presented along with the various diagnostic procedures employed in arriving at a diagnosis. The importance of early diagnosis and treatment is emphasized. Statistics of cases seen at Harper Hospital are presented. The histories of four cases are presented, one a possible cure. Lantern slides of these cases will be shown.
   Discussion—
   1. Dr. Vernor M. Moore, Grand Rapids.
   2. Dr. Carl V. Weller, Ann Arbor.
   3. Dr. Wm. Evans, Detroit.
3. "Types of Nephritis and Their Treatment"—Dr. Wilber E. Post, Chicago.
   Discussion—
   1. Dr. Wm. Northrup, Grand Rapids.
   2. Dr. L. H. Newburgh, Ann Arbor.
4. *Pathological Conference* led by Dr. Wm. German, Grand Rapids, with interested clinicians leading discussion, etc.

Otolaryngology and Ophthalmology

Chairman: Carl C. McClelland, Detroit.
Secretary: Ralph B. Fast, Kalamazoo.

First Session—Wednesday, Sept. 13, 1933
9:15 A. M.

Ophthalmology

1. "Focal Infections in Cataract"—Dr. J. G. Huizinga, Holland.
2. "Intra-ocular Foreign Bodies with a Review of Eighty Cases"—Dr. Don Marshall, Ann Arbor.
3. Subject to be announced—Dr. M. C. Dewar, Grand Rapids.
4. "The Management of Glaucoma"—Dr. Bruce Fralick, Ann Arbor.
5. "Operations on the Orbit"—Dr. W. S. Benedict, Mayo Clinic.

Round Table Discussion at noon—Dr. W. S. Benedict.

Second Session—Thursday, Sept. 14, 1933
9:15 A. M.

Otolaryngology

1. "Endoscopy"—Dr. Walter Slack, Saginaw.
2. "Suppurative Labyrinthitis with Case Reports"—Dr. Neil Bentley, Detroit.
3. "Management of Chronic Sinus Disease"—Dr. Ferris Smith, Grand Rapids.
4. Subject to be announced—Dr. A. C. Furstenberg, Ann Arbor.
5. Subject to be announced—Dr. Wm. G. Bird, Flint.

Round Table Discussion, lunch hour—Dr. A. C. Furstenburg.

Gynecology and Obstetrics

Chairman: NORMAN F. MILLER, Ann Arbor.
Secretary: HAROLD C. MACK, Detroit.

First Session—Wednesday, Sept. 13, 1933
9:00 A. M.

1. Chairman's Address—Dr. Norman F. Miller, Ann Arbor.
2. Report of Committee on Clinical Problems—Dr. Ward Seeley, Detroit.
3. "The Treatment of Primary Dysmenorrhea"—Dr. L. E. Bauer, Detroit.
4. "Conservative Treatment of Placenta Previa"—Dr. Ward Seeley, Detroit.

   The management of placenta previa, exclusive of cesarean section, is illustrated in a series of cases. Good results can be obtained with patients in poor condition, or in patients where previous manipulations or well-advanced cervical dilatation render cesarean section inadvisable. The importance of preliminary blood transfusion for the reduction of mortality is stressed. Methods of treatment advised include (1) artificial rupture of membranes, (2) Braxton-Hicks version, (3) insertion of dilatable bag. The dangers of *accouchement forcé* are emphasized.
5. "Ovarian Disease in Relation to the Painful Breast"—Dr. J. E. Rosenfeld, Battle Creek.
6. "Hemorrhage from Ruptured Graafian Follicle Cysts with Case Reports"—Dr. S. L. LaFever, Ann Arbor.

Second Session—Thursday, Sept. 14, 1933
9:00 A. M.

1. Business Session—Election of Officers.
2. Report of Section Committee on Birth Control—Dr. Harold Mack, Detroit.
3. Report of Committee on Birth and Death Certificates—Dr. Russel Alles, Detroit.
4. "Toxemias of the Later Months of Pregnancy"—Dr. A. Dale Kirk, Flint.
5. "The Effect of Labor Upon the Kidneys of the Pregnant Woman"—Dr. J. E. Cooper, Battle Creek.

   The paper will be divided into four subdivisions, namely, (1) eclampsia, which will probably not be discussed, (2) chronic nephritis and (3) the milder forms of renal fatigue so-called, (4) the upper urinary tract dilatations, including pyelitis.
6. "The Forceps in General Practice"—Dr. E. D. Plass, Prof. of Obstetrics and Gynecology, University of Iowa, Iowa City, Iowa.

   The speaker for the general session will be Dr. E. D. Plass. His title will be—"An Analysis of over 100,000 Births in Iowa with Particular Reference to the Relationship between Type of Delivery and Stillbirth."

Dermatology and Syphilology

Chairman: G. H. BELOTE, Ann Arbor.
Secretary: A. R. WOODBURNE, Grand Rapids.

Wednesday, Sept. 13, 1933—9:15 A. M.

1. "Metaphen Dermatitis—A Report of Two Cases" Dr. G. H. Belote, Ann Arbor.
2. "Some Unusual and Interesting Lesions of the Oral Mucous Membrane"—Dr. A. R. Woodburne, Grand Rapids.
3. "Pseudosyphide"—Dr. P. O. Poth, Ann Arbor.
4. "A Discussion of the Diseases of the Instability Group"—Dr. Ruth Herrick, Grand Rapids.

Thursday, Sept. 14, 1933, 9:15 A. M.

Clinic: Presentation and Discussion of Cases.

Combined Section Meetings

First Session—Wednesday, Sept. 13, 1933
1:15 P. M.

Presiding: Section Officers.

1. "Differentiation of Common Endocrine Disturbances"—Dr. R. H. Moehlig, Detroit.
2. "Physiological Functions of the Gastro-intestinal Tract"—Dr. Wingate Todd, Cleveland, Ohio.
3. "The Surgical Aspects of Syphilis"—Dr. Udo J. Wile, Ann Arbor.
4. "Diseases of the Colon"—Dr. Thomas E. Jones, Cleveland.

Second Session—Thursday, Sept. 14, 1933
1:15 P. M.

1. "The Rôle of the Urologist in General Diagnosis"—Dr. Herman L. Kretschmer, Chicago, Ill.
2. "Practical Application of Orthopedic Principles"—Dr. Willis Campbell, Memphis, Tenn.
3. "An Analysis of over 100,000 Births in Iowa with Particular Reference to the Relationship between Type of Delivery and Stillbirth"—Dr. E. D. Plass, Iowa City, Iowa.
4. "Blood Chemistry in Medicine (Calcium, Sugar, Nitrogen, etc.)"—Dr. Wilbur Post, Chicago, Ill.

General Meeting

Wednesday Evening—Sept. 13, 1933—7:45 P. M.

CIVIC AUDITORIUM

Presiding: J. MILTON ROBB, M.D., President—Detroit.

1. Musical Prelude—7:30-7:45 P. M.
2. Welcome—H. J. Pyle, M.D., President, Kent County Medical Society.
3. Announcements—F. C. Warnshuis, M.D., Secretary.
4. President's Address—"Our One Great Undepressed Asset."—J. Milton Robb, M.D., Detroit.
5. Address—Invited Guest.
6. Induction Into Office as President—George L. LeFevre, M.D., Muskegon.
7. Introduction of President-Elect.
8. Adjournment.

Pediatrics

Chairman: Campbell Harvey, Pontiac.
Secretary: Edgar E. Martmer, Detroit.

First Session

Wednesday, September 13, 9:00 A. M.

1. "Petrositis (Infections of the Temporal Bone)"—Dr. W. S. Gonne, Detroit.
2. "Diagnosis of Bronchiectasis in Childhood"—Dr. C. K. Hasley, Detroit.
3. "Diphtheria"—Dr. D. W. Gudakunst, Detroit.
4. "Newer Methods of Treatment of Congenital Syphilis"—Dr. A. Woodburne, Grand Rapids.
5. "Calcium Metabolism"—Dr. A. E. Newberg, Ann Arbor.

Second Session

Thursday, September 14, 9:00 A. M.

1. "Viosterol in the Prevention of Rickets"—Dr. E. W. May, Detroit.
   Dr. L. A. Kempton, Saginaw.
   Dr. John Parsons, Ann Arbor.
2. Newer Concepts of Blood Dyscrasies of Infancy"—Dr. T. B. Cooley, Detroit.
3. "Physiology of the Gastro-intestinal Tract in Infancy and Childhood"—Dr. Wingate Todd, Cleveland.

SECTION ASSIGNMENTS

Meeting Places

Medicine.....Main Ball Room
Surgery.....Stage—Main Auditorium
Gynecology & Obstetrics.....
Committee Rooms "B" to "E" Main Floor
Pediatrics.....Red Room—Second Floor
Dermatology.....Committee Room "F" Main Floor
Eye, Ear, Nose & Throat.....
Ball Room—Pantlind Hotel
Combined Sections.....Main Ball Room—Auditorium

RADIUM THERAPY IN CARCINOMA OF THE LIP

Edmund Kelly, Baltimore, divides his 252 cases of carcinoma of the lip, seen from 1921 to 1929, inclusive, into four groups: lesions involving not more than one half of the lip; lesions involving more than one half of the lip or extending out of sight inside the buccal cavity; lesions with definite glandular enlargement, and cases in which radium and surgery were combined or those in which previous radium, roentgen or surgical treatment had been given elsewhere. Of the 252 patients, the 200 patients with definite carcinoma of the lip, some moderate, some extensive, a few even with grandular metastases, were treated by radium alone, and out of these 200 primary cases there remain 133 patients living and well without recurrence two years after treatment, and out of 99 cases treated five years or more ago, 72 patients are living and well five years after treatment. The disease is one that is easily recognizable before it has become extensive locally or has metastasized to the glands and is late to metastasize (82 per cent of the primary cases show no palpable metastases); therefore, one might reasonably expect to get practically all cases while they are still in the curable stage and by irradiation cure over 90 per cent without hospitalization. Of the fifty-two patients who had previous surgical removal, postoperative recurrences, or previous radium or roentgen treatment elsewhere, fifteen had a combination of surgical and radium treatment, and the remainder either refused treatment or were in such a hopeless state that treatment was not considered worth while; the latter had invariably been treated by "local healers" with "cancer pastes."—Journal A. M. A.

OBLITERATING SYPHILITIC ARTERITIS

Lyle Motley and Robert Moore, Memphis, Tenn., believe that their case of a white woman, aged 29, is worthy of reporting because the patient presented unusual clinical observations, particularly the discrepancy in blood pressure between the two arms. This seems the more true, since nothing can be found in the literature regarding obliteration of isolated large vessels from any cause since 1925. Such isolated obliterative lesions should probably be considered clinically and sought for more diligently at necropsy than has apparently been the custom in the past, since they can easily explain unusual and at times vague signs and symptoms for which no basis can be found clinically. Obliterative lesions of the carotid from atheroma and thrombosis resulting in cerebral and other neurologic manifestations are reported. It is conceivable that similar processes, whether from syphilitic lesions or other conditions, could easily cause vague visceral disturbances, such as unexplained abdominal symptoms. Syphilitic involvement of the pulmonary vessels in the form of Ayerza's disease is being recognized clinically and reported with greater frequency. It is entirely possible that instances of obliterative vascular lesions causing other clinical manifestations will be reported with greater frequency as such conditions are more frequently brought to one's notice and necropsies are more regularly and more thoroughly done.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

AUGUST, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

CANCER CURES

The Bureau of Investigation of the American Medical Association has just issued a brochure of thirty-three pages on "Cancer Cures and Treatments," which describes some of the flagrant attempts to prey upon the unfortunate sufferers of malignant disease. The pamphlet informs the reader of the great frequency with which the Bureau is approached by persons who believe they have discovered or have in their possession sure cures of cancer. The American Medical Association makes the following demands of any person who claims he has a method of treatment for cancer. Before the Bureau will enter into an investigation it must receive a complete statement of the composition of the remedy with the names and quantity of each ingredient for which therapeutic action is claimed; also the would-be benefactor of persons afflicted with cancer must send the names and addresses of at least twenty-five persons who have been cured and the names and addresses of the physicians who diagnosed the cases as cancer. Of the large number applying to the Bureau of Investigation of the American Medical Association not one has satisfied these simple and not unreasonable demands on the part of the Bureau. It might also be added that the American Medical Association does not promise that such information provided will be accepted in confidence. Quite otherwise. Such information regarding the character of alleged remedies would become part of the Association's records to be passed on to any one who may inquire about the product. The brochure in question quotes Dr. Elliott C. Cutler to the effect: "Secret cures can never be what they promise, for there is no one scientifically trained or susceptible to the ordinary demands of the human conscience who would withhold for his private means such an important matter as the discovery of the cure of this disease."

The efforts on the part of the medical profession in ascertaining the nature and cause of malignant disease have been strenuous and persistent, yet little real light has been thrown on the subject of its origin. It is established beyond a doubt, however, that cancer or other malignant conditions diagnosed early enough, that is before extension of the growth or metastasis takes place, may be completely cured by surgery or radiation therapy, which includes the use of the x-rays and radium. Caustics have the same effect, namely, they are a means of eradication in early cases, but surgery, radium and the x-rays have been found so much more effective and more satisfactory that caustics are no longer employed by the most enlightened and advanced physicians.

FREEDOM OF SPEECH

Commenting on the little brochure, Cancer Cures and Treatments, issued by the Bureau of Investigation of the American

Medical Association, the courage of such an undertaking should not be lightly considered. In telling the truth about the various cults and treatments a publication often assumes a legal risk in itself costly and time-consuming if the case comes to court, even though the verdict be favorable. One may make a statement to the effect that diphtheria antitoxin is ineffective and does positive harm, that vaccination does not prevent smallpox or that the earth is flat, which statements are of course palpable lies, without any fear of prosecution. The only penalty one would suffer is that of being branded a fool by everyone whose opinion is of any value. But let one say that certain flagrantly advertised foods do not contain vitamins or that such statement made by the advertiser is false, he most certainly would be called upon to defend himself against a charge for damages. There are instances, many of them, in which health is exploited in which the findings of science are appropriated and misapplied in a way that no truly scientifically minded person would attempt to justify. Science, to use a phrase of Socrates, "speaks with stammering tongue." Other interests are likely to be cocksure. Courage in attacking and showing up the falsity of so-called cures deserves the moral support of every fair minded person.

THE OSTEOPATHIC BILL VETOED

In the July number of this Journal was noted the veto of the osteopathic bill by Governor Comstock. This act on the part of the governor is a distinct service to the people of the State of Michigan. The fact that it passed both the house of representatives and the senate indicates only a difference of viewpoint. Is the healing art of greater concern to the sick person or to the person who assays to practise it? The medical profession and Governor Comstock maintain that the patient must be given the first consideration. Many others, however, evidently feel that the cultist should be given a fair show in their opinion along with regular medicine, unmindful of the fact that the present high and progressive standards of medicine in every enlightened country are self imposed by the medical profession. Medicine is its own severest as well as most intelligent critic, for criticism to be of any value must be intelligently directed. We can understand the viewpoint of those who seek recognition of the cultist; they are, however, seeking his rather than the patient's good. The trend of modern scientific education is away from cults. There is only one legal system, one profession of engineering, one system of mathematics or chemistry or biology or one science and art of medicine.

IS IT FEAR?

Among the findings of the Committee on Social Survey which has been conducted under the auspices of the Michigan State Medical Society is the dicovery that, instead of a plethora of doctors in this state, there is not a sufficient number to take care of the work that should be done in the way of periodic health examinations and private preventive medicine. Under present conditions the practice of medicine is very largely limited to curative medicine. The situation which prevails leads one to a speculation as to its cause. We do not believe that the fact that the people do not get all the medical care they need is due wholly to economic causes. There are numerous evidences of neglect on the part of persons to whom no financial problem presents itself. Nor is it, on the other hand, entirely a matter of carelessness on the part of the people. One large element entering into the apparent neglect of the public to avail themselves of medical care and thereby forestall illness by a periodic stock-taking, is fear. While the doctor is a symbol of health he is also a symbol of death. If the findings he makes are favorable and all evidence of disease is absent, his message is one of hope, of optimism; if on the other hand he find evidence of malignant disease or disintegration characteristic of constitutional disease he is a purveyor of despair. There is a great deal of the ostrich in all of us, the physician as well as the layman. The health boast of middle age is often a manifestation of an inferiority complex so far as actual physical well being is concerned.

AN ERRONEOUS IMPRESSION

An impression has got abroad to the effect that the House of Delegates at the special meeting called at Lansing on July 12 had endorsed health insurance and its corollary, state medicine. This of course is not true. The House of Delegates has provided for a verbatim report of its deliberations and has voted unanimously to print the report in the

JOURNAL of the Michigan State Medical Society so that each member may read for himself the manner in which the final report of the committee on survey of medical and health agencies was received and its recommendation either adopted or modified for adoption.

The speaker of the House was authorized to appoint a committee on Economics to carry on further study of the work of the original committee whose report was received and the members discharged. The whole subject will come up for further consideration at the annual September meeting.

BACK PAIN

Elsewhere in this number of the JOURNAL is an interesting contribution on "Industrial Backs." This includes a wide range of patients from the factory worker to the laborer on the farm. With the multiplicity of automobile accidents women even are not excluded. The so-called industrial back is met not only by the orthopedic surgeon but perhaps far more frequently by the general practitioner.

Dr. Kidner's paper emphasizes the importance of prompt and adequate treatment of the acute condition which he finds is often neglected where the patient himself fails to realize the seriousness of the affection until it is too late to procure a permanent cure. Negative x-ray findings should not be considered an indication for dismissing the case. Positive findings indicate injury not only to the bony parts but to the soft structures as well. Trauma of the soft parts, muscles, cartilage and nerves often occurs where no bone pathology may be manifest. Dr. Kidner emphasizes the importance of a knowledge of the anatomy, physiology and pathology of the spine. The analysis he says is made simpler by the visualization of the spine as a single joint subject to all the ills to which other joints are heir.

The fact that the subject of back pain is of such general interest and importance justifies the amount of space accorded this excellent presentation at a time that brevity in scientific papers is the order of the day.

PUTTING IT CLEAR

(J. B. S. Haldane in *Science and Human Life*)

Now the recent study of ultramicroscopic beings has brought up at least one parallel case, that of the bacteriophage, discovered by d'Herelle, who had been to some extent anticipated by Twort. This is the cause of a disease, or, at any rate abnormality, of bacteria. Before the size of the atom was known there was no reason to doubt that

> Big fleas have little fleas
> Upon their backs to bite 'em;
> The little ones have lesser ones.
> And so ad infinitum.

But we now know that this is impossible. Roughly speaking, from the point of view of size, the bacillus is the flea's flea, the bacteriophage the bacillus' flea; but the bacteriophage's flea would be of the dimensions of an atom, and atoms do not behave like fleas. In other words, there are only about as many atoms in a cell as cells in a man. The link between living and dead matter is therefore somewhere between a cell and an atom.

MEDICAL ECONOMICS

SUPERVISION OF SPECIALISM

ANDREW P. BIDDLE, M.D., Sc.D. (Hon.)
DETROIT, MICHIGAN

In these days of rapid changes in every phase of professional as well as industrial and agricultural activities, it is incumbent upon our profession, the medical, to recognize these inherent changes and to meet them in such a way that we may ride the storm and emerge with an even stronger faith in our profession and with a determination so to fit ourselves that the more exacting demands for service are realized and fulfilled. These greater demands offer an opportunity for the physician, who either by choice, opportunity or association, or sometimes by necessity, prefers to devote his life work to the study of the science and to the practice of the art of administering to a limited field—an inducement to prepare himself and by proper preparation to gain recognition in his field. This recognition should come first from those who are familiar with the problems inherent in his special work. While it may be and often is contended that specialization is overdone in this country, no one would deny that it is a helpful art and no one would deny that a greater usefulness both to the profession and to the lay public would ensue from an insistence that the physician who would set himself up as a specialist should meet the additional requirements for such a claim.

Under the title The American Board of Dermatology and Syphilology, A Step Forward in the Supervision of Specialism, Dr. Fred Wise, New York, gave the presidential address before the American Dermatological Association at its 57th annual meeting, held in Chicago June 8th to 10th. In his introduction Dr. Wise states: "The *practice* of a profession affected with a public interest always precedes the establishment of accepted discipline for training in that profession and the development of provisions for the supervising and control of the practice itself. Medicine is no exception to this rule." Again: "It (the lay public) has the right to demand that medicine itself take the responsibility for the competence of those of its practitioners who hold themselves out as being possessed of special ability and skill." And again, "The supervision of the practice of specialties is properly a function of the medical profession; it is both a right and an obligation."

Hospitals and general practitioners who desire consultation are usually sufficiently well acquainted with the qualifications of the individual specialist

as to offer no danger of improper selection, but the layman possesses no standard criteria; yet he, the layman, "expects of the physician to whom he comes for special attention, protection from irresponsible specialization." (Dr. Wise's presidential address.)

Examining Boards have been created to certify to these attainments and have given recognition to him who has prepared himself either through post-graduate work or association with well-known professional men of his specialty, or who by experience and practice has gained recognition. The Boards already created have been by the Ophthalmologists, the Otolaryngologists, the Obstetricians and the Gynecologists; the first in 1916, which Board has already given certificates to nearly a thousand candidates.

While all Boards have certain problems in common, each covers a definite field and its method of attack must vary with these differences. Common to all is the question whether this examination and certification should be given through each State Medical Association or through a National Board; but there can be no question as to the advantage of a National Board. It standardizes the requirements, making them acceptable to all States; it removes the danger of partiality and political influences, and gives to the recipient a higher rating. Common to all is the weight that should be given to preliminary, especially pre-medical, education; the value of the character of the post-graduate work he may have pursued. To each Board is, of course, left the determination of the candidate's fitness to practice in his special field.

Profiting by the experiences of the three Boards already in operation, the task of organizing the American Board of Dermatology and Syphilology was a comparatively simple one. On November 11, 1932, at Philadelphia, the organization was completed; resolutions were adopted concerning the proper procedure to be followed; and later the Board was incorporated under the laws of the State of Delaware.

The experiences of these Examining Boards have brought out the need of such an examination to encourage a better preparation; they have showed many of the weaknesses inherent to the fundamentals and especially have they shown the need of more definite training. Today, according to Dr. Wise, there are really only five American Universities which have established separate complete departments or separate courses for the preparation of specialists. Among the foremost of these is the University of Michigan Medical School.

A certificate granted by any of these Boards does not of itself confer, or purport to confer, any degree, or legal qualifications, privileges or license to practice a certain specialty. The aim is to elevate the standard of qualification for specialists and to remove the danger both to the profession and the laity inherent in uncontrolled specialism. It is self evident that no Board can limit or interfere with the professional activity of any duly licensed physician. However, it is expected and hoped that medical schools, hospitals, physicians, and the lay public will deem a certificate from any one of these Boards as additional proof of adequate preparation and will avail themselves of this certification in filling positions under their control.

That the body of the profession may know that the specialists, as a group, are conscious of their responsibilities and are making every effort to keep in touch with the advances in their selected field—guiding from their own experiences those desiring to enter into special work—is the only reason for submitting these few thoughts to publication.

SOCIETY ACTIVITY

GRAND RAPIDS MEETING

Preliminary announcements related to our annual meeting in Grand Rapids on September 11, 12, 13 and 14 will be found in this issue. The Kent County Medical Society as host extends a cordial invitation to every member to attend this annual meeting. Your host assures you a pleasant and profitable time.

All the meetings will be held in the new Civic Auditorium that cost over a million and a half dollars. Incidentally, should it be warm, the auditorium will be most comfortable, for an average temperature of 70 degrees is maintained by a modern ventilating system.

Section officers have arranged programs of interest and educational value to every member. The combined section meetings on Wednesday and Thursday afternoons will be addressed by outstanding men who are recognized leaders in their respective fields.

The House of Delegates will convene at 2 P. M. on Monday, September 11.

Grand Rapids has ample hotel accommodations at reasonable rates. The city is readily accessible over paved highways from every part of the state. An attendance exceeding 1,500 should be recorded. These will be the most profitable days that any member can spend.

Kent County and Grand Rapids bid you welcome. Plan to attend.

SPECIAL NOTICE TO DELEGATES

At the Special Meeting held in Lansing the House of Delegates determined to convene in annual session in Grand Rapids September 11 at 2:00 p. m., and to hold the following sessions:

September 11—2:00 and 7:45 p. m.

September 12—9:30 a. m., 2:30 and 7.45 p. m.

Delegates will please note these dates.

ANNUAL MEETING ARRANGEMENTS

To insure a successful annual meeting in Grand Rapids several local committees have been appointed and are actively engaged in perfecting local arrangements and providing

entertainment. No details will be overlooked by the following committees:

General Chairman—V. M. Moore.

Assistant General Chairman—Don Cameron.

Hotel and Parking—E. W. Schnoor and G. L. Riley.

Monitors for Section Meetings—*Surgery*, O. H. Gillette and Torrance Reed; *Medicine*, Paul Ralph and Joe Whinery; *Eye, Ear, Nose and Throat*, Dewey Heetderks and Robert Laird; *Gynecology*, J. D. Miller and E. B. Andersen; *Pediatrics*, A. R. Nelson and A. M. Hill; *Dermatology*, Ruth Herrick and John Yonkman.

History—C. H. Johnston.

Local Entertainment and Clubs—Frank Doran, Chairman, David Hagerman, William Butler and R. H. Denham; Blythefield, Rowland Webb; Cascade, Arthur Moll; Highlands, William DuBois; Kent, W. A. Hyland.

Committee on Invited Guests: F. N. Smith, R. R. Smith, Alexander Campbell, L. J. Schermerhorn, G. H. Southwick, R. J. Hutchinson, John R. Rogers, V. M. Moore, J. C. Foshee, Rowland Webb, A. B. Smith, H. S. Collisi, John H. McRae, and W. A. Hyland.

COMMITTEE APPOINTMENTS

In accordance with the action of the House of Delegates Speaker Pyle has made the following appointments:

COMMITTEE ON ECONOMICS:

W. H. Marshall, Chairman
F. A. Baker
L. G. Christian
Burt V. Estabrook
C. S. Gorsline.

AMENDMENTS TO CONSTITUTION AND BY-LAWS:

L. G. Christan, Chairman, Lansing
D. P. Foster, Detroit
F. A. Reeder, Flint
L. F. Foster, Bay City
William S. Reveno, Detroit.

These committes are to report at the annual meeting. The Committee on Economics succeeds the Survey Committee and will continue that committee's work.

REMINDERS

Upper Peninsula Medical Society annual meeting at Escanaba, August 10 and 11.

One Hundred and Thirteenth annual meeting, Michigan State Medical Society, Grand Rapids, September 11, 12, 13 and 14. See preliminary program this issue.

To retain medico-legal protection you must pay your dues. No protection will be accorded for services rendered and for which suit is brought during your period of suspension. Remit to your County Secretary today.

There will be ten noted speakers from other states who will participate in the annual meeting program. You will want to hear them.

Before prescribing liquor familiarize yourself with the provisions of new Federal and State Laws.

The September JOURNAL will contain the official program for the annual meeting.

Read our advertising section and patronize your advertisers.

HEALTH INSURANCE

When the special session of the House of Delegates went into executive session the members of the press retired and sent in to their papers the report that health insurance had been adopted in principle. Their story was based upon the committee's report, the Council's report and the Ecklund motion.

In executive session the House amended the Committee's recommendation as shown by the minutes.

Upon adjournment one reporter showed a copy of his telegraphed story to several delegates. He was shown the error in his conclusion and promised to correct it in the following edition.

This is the actual basis for the garbled newspaper reports. No officer or committee member gave any press releases. The action of the House upon health insurance as shown by the minutes printed in this issue was as follows:

EXTRACTS FROM THE MINUTES OF THE SPECIAL MEETING

DR. HIRSCHMAN: I wish to offer a substitute motion as follows: that we delete Section 1 of this recommendation, which reads as follows: "that the House of Delegates approve the principle of health insurance." I move that we delete that sentence entirely and that the reading of Section 1 on the bottom of page 171 be as follows: "That the Committee on Medical Economics be directed to study and prepare and present for the consideration of the House of Delegates a plan or plans for health insurance, provided, however, that such a plan or plans shall be based upon the following policies,"

with (a), (b), (c) and (d) just the same as at present. In other words, we have added the word "study" before "prepare" and we have changed the word "approval" to "consideration," which directs the Committee on Economics to give further study to this problem and then to report to the House of Delegates at its subsequent meeting. Anything that we adopt today we adopt and we are certainly not ready to adopt these recommendations, excellent though they are, without further study by this new committee which is specifically appointed to give it further study. I, therefore, make this substitute motion.

Dr. Hirschman: Just one word on this substitute motion, and that is that I believe by deleting this first proposition we leave the matter entirely open. If we do as my friend Ecklund of Oakland has suggested, we go on record as disapproving the principle of health insurance, we close the doors to the consideration by our Committee on Economics of any phase of health insurance.

I am not so sure but that some of us are going to live long enough to see some type of health insurance in effect, and I don't know what the economic trend is going to be, but we as an organized body of medical men should be prepared with all the factual evidence that we can get through this Committee on Economics, to then say whether we shall or shall not approve of the principle, and not until then.

Dr. Hirschman: On the bottom of page 171 of the report, that we delete the first sentence, which reads: "that the House of Delegates approve the principle of health insurance." Proposition 2 to read as follows: "That the Committee on Medical Economics be directed to study, prepare and present for the consideration of the House of Delegates a plan or plans for health insurance, provided, however, that such a plan or plans shall be based upon the following policies:

"(a) Free choice of physician by the insured;

"(b) The limitation of benefits to those of medical service;

"(c) The control of medical service benefits by the profession; and

"(d) The exclusion of individuals or organizations that might engage in health insurance for profit."

CONTRACT PRACTICE

For the guidance of members and County Societies there is quoted below the revised section of the A. M. A. Principles of Ethics related to contract practice. It is felt that insistence upon the strict observance of these principles should be exercised by County officers.

"It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession."

By the term "contract practice" as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: (1) When there is solicitation of patients, directly or indirectly. (2) When there is underbidding to secure the contract. (3) When the compensation is inadequate to assure good medical service. (4) When there is interference with reasonable competition in a community. (5) When free choice of a physician is prevented. (6) When the conditions of his employment make it impossible to render adequate service to his patients. (7) When the contract because of any of its provisions or practical results is contrary to sound public policy.

Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole.

LEGISLATION

The Legislative Committee will render a full report in September. Many inquiries have been received, however, in regard to certain bills. For informative purposes the following general statement is made:

The Osteopathic bill was vetoed by the Governor.

Amendments to the Medical Practice Act died in the committee.

The Chiropractic bill was passed and signed. The following are the sections of this bill.

STATE OF MICHIGAN
57TH LEGISLATURE
REGULAR SESSION OF 1933

Introduced by Bill No. 389
Mr. Hatch File No. 395

HOUSE ENROLLED ACT NO. 131

An act to provide for the appointment of a board of chiropractic examiners and for the examination, regulation, licensing and registration of chiropractors, and for the punishment of offenders against this act; and to repeal acts and parts of acts in conflict therewith.

The People of the State of Michigan enact:

Section 1. Within thirty days after the passage of this act the governor shall appoint a board of chiropractic examiners composed of three chiropractors, each of whom shall be a graduate of an incorporated school or college of chiropractic and who shall have been engaged in the practice of their profession in this state for at least five years next preceding the passage of this act, and not more than one to be a graduate of any one school. No member of said board shall be connected in any way with a school or college of chiropractic.

Sec. 2. The members of said board shall within thirty days after their appointment meet and elect a president from their own number, and elect or appoint a secretary who need not be one of their number

Sec. 3. Any person wishing to practice chiropractic in the state of Michigan shall make application to the board of chiropractic examiners for a license to do so, such application to be accompanied by a fee of twenty-five dollars, and the said board shall issue such license upon the following conditions, namely:

Each applicant shall show to the satisfaction of the board that he or she is at least twenty-one years of age and possesses a high school education or its equivalent; and that he or she is a graduate of a recognized school or college of chiropractic which does not permit correspondence or night courses requiring for graduation a course of study of not less than two thousand seven hundred fifty forty-five minute class hours; and in addition, pass an examination before the board and to its satisfaction in the following subjects: anatomy, physiology, histology, chemistry, pathology, bacteriology, diagnosis, hygiene, and public health, and the theory and practice of chiropractic, with an average passing grade of seventy-five per cent: *Provided,* That the board may issue a license without an examination, upon payment of a fee of fifteen dollars, to any applicant who is a graduate of a reputable school or college of chiropractic and who has been practicing his or her profession in this state for at least five years next preceding the passage of this act: And *provided further,* That the board may at its discretion issue a license to an applicant if he or she shall present satisfactory proof of the possession of a license or certificate of registration which has been issued to said applicant within the states

or territories of the United States, or within any foreign country, where the requirements for the registration of said applicant at the date of his or her license shall be deemed by said board of chiropractic examiners to be equivalent to those of this act; and the fee for each such license shall be fifty dollars.

Sec. 4. Every person who receives a license to practice chiropractic from the board of chiropractic examiners shall pay to the said board on January first of each and every year a renewal fee of ten dollars: *Provided,* That satisfactory evidence is presented to the board that the said licensee in the year preceding the application for renewal attended at least one of the two-day educational programs as conducted by the Michigan state chiropractic society. The secretary shall notify each licensee at least thirty days prior to January first of each year and failure to pay such renewal fee shall operate as a forfeiture of the right of the licensee to practice his profession in this state: *Provided, however,* That he may be reinstated by the board at its discretion upon payment of all fees due.

Sec. 5. Every person who receives a license to practice chiropractic from the board of chiropractic examiners shall before beginning the practice of his profession in this state record said license or a certified copy thereof with the county clerk of the county in which he expects to practice. Until such license is filed for record the holder thereof shall exercise none of the rights or privileges conferred therein. The county clerk shall keep in a book provided for that purpose a complete list of all the licenses recorded by him with the date of the recording of such licenses. Each holder of a license shall pay to the county clerk a fee of one dollar for making such record.

Sec. 6. The license provided for in this act shall entitle the holder thereof to practice chiropractic in the state of Michigan, and for the purpose of this act chiropractic is defined as "the locating of misaligned or displaced vertebræ of the human spine, the procedure preparatory to and the adjustment by hand of such misaligned or displaced vertebræ and surrounding bones or tissues."

Sec. 7. The board of chiropractic examiners shall refuse to issue a license to any person guilty of grossly unprofessional conduct and may revoke any license granted upon mistake of material fact or by reason of fraudulent misrepresentation of fact by any applicant. The board may revoke the license of any person convicted of a felony or guilty of unprofessional and dishonest conduct or being guilty of offenses involving moral turpitude, habitual intemperance or being habitually addicted to the use of narcotics.

Sec. 8. Any person who shall practice chiropractic or hold himself out to the public as a chiropractor without having first obtained a license from the board of chiropractic examiners shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than two hundred dollars, or by imprisonment in the county jail for a period of not more than six months or by both fine and imprisonment in the discretion of the court for each offense.

Sec. 9. All moneys received by said board of chiropractic examiners shall be paid to the state treasurer monthly and shall be credited to the general fund of the state and a receipt for the same shall be filed by the secretary of the said board in the office of the auditor general. Each of the members shall receive for each day actually engaged in the duty of his office his actual and necessary expenses. All expenses incident to the proper functioning of said board shall be paid out of the fund of the state board of chiropractic examiners and not otherwise.

Sec. 10. All acts or parts of acts in conflict with this act are hereby repealed.

Sec. 11. If any section or part of this act should be declared unconstitutional, it shall not affect the validity or force of any other section or part thereof not declared to be unconstitutional.

METABOLISM OF ALCOHOL

H. E. HIMWICH, L. H. NAHUM, NATHAN RAKIETEN, J. F. FAZIKAS, DELAFIELD DU BOIS and E. F. GILDEA, New Haven, Conn., point out that the ingestion of 10 c.c. of 19 per cent alcohol per kilogram of body weight by human subjects and of 50 c.c. per kilogram of body weight by dogs is followed by an acidosis. This acidosis is probably the result of two factors: a relative retention of carbon dioxide and the accumulation of lactic acid. The alkali reserve of the body is diminished because of this accumulation of lactic acid. In patients suffering from the after-effects of overindulgence in alcohol—the so-called hangover—there was an increased content of lactic acid in the arterial blood. The brain, which usually derives its energy from the oxidation of carbohydrate, may nevertheless also oxidize alcohol.—*Journal A. M. A.*

A BRIEF MEDICAL HISTORY OF GRAND RAPIDS

COLLINS H. JOHNSTON, M.D.

GRAND RAPIDS, MICHIGAN

The Medical History of Grand Rapids began about a century ago when Dr. Jason Winslow of Gull Prairie, Kalamazoo County, was called to Grand Rapids January 1, 1835, to reduce a dislocated hip for Joel Guild. Grand Rapids was then a village of less than one hundred inhabitants and had no doctor of its own until August of the same year when Dr. Stephen A. Wilson located there. He was followed in October by Dr. Charles Shepard, who practiced in Grand Rapids until his death in 1893.

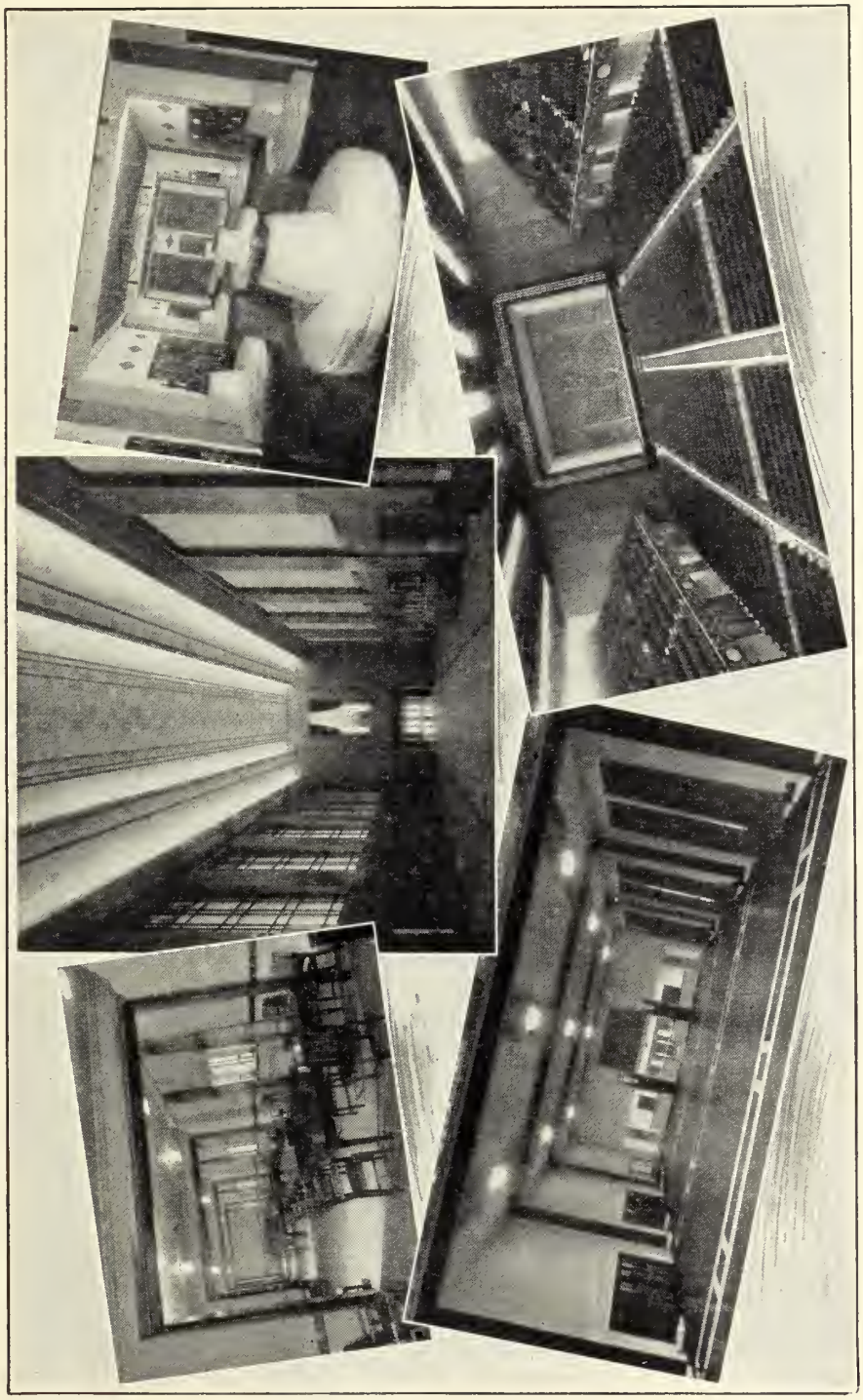
Dr. Shepard was born in 1812. He graduated in 1835 from Fairfield Medical College, New York, and located in Grand Rapids in the same year. He took rank as a surgeon and performed his ninth ovariotomy in 1878. His first call was to Ada, where he vaccinated 150 Indians. He frequently rode fifty miles on horseback to see patients. He was president of the Grand Rapids Medical and Surgical Society four times and of the Michigan State Medical Society in 1886. He was a member of the International Medical Congress; of the American Microscopical Society; of the American Medical Association; chief of staff of the Union Benevolent Association, and consulting Gynecologist to St. Marks. He also was a member of the Common Council several times, and mayor of Grand Rapids in 1835.

He was greatly interested in microscopy and examined a Leitz microscope I brought from Berlin in 1893 with much interest, having had an old-fashioned American instrument a good many years. He died in Grand Rapids in 1893 at the age of eighty-one, leaving a name which was long a household word not only in Grand Rapids but throughout the State.

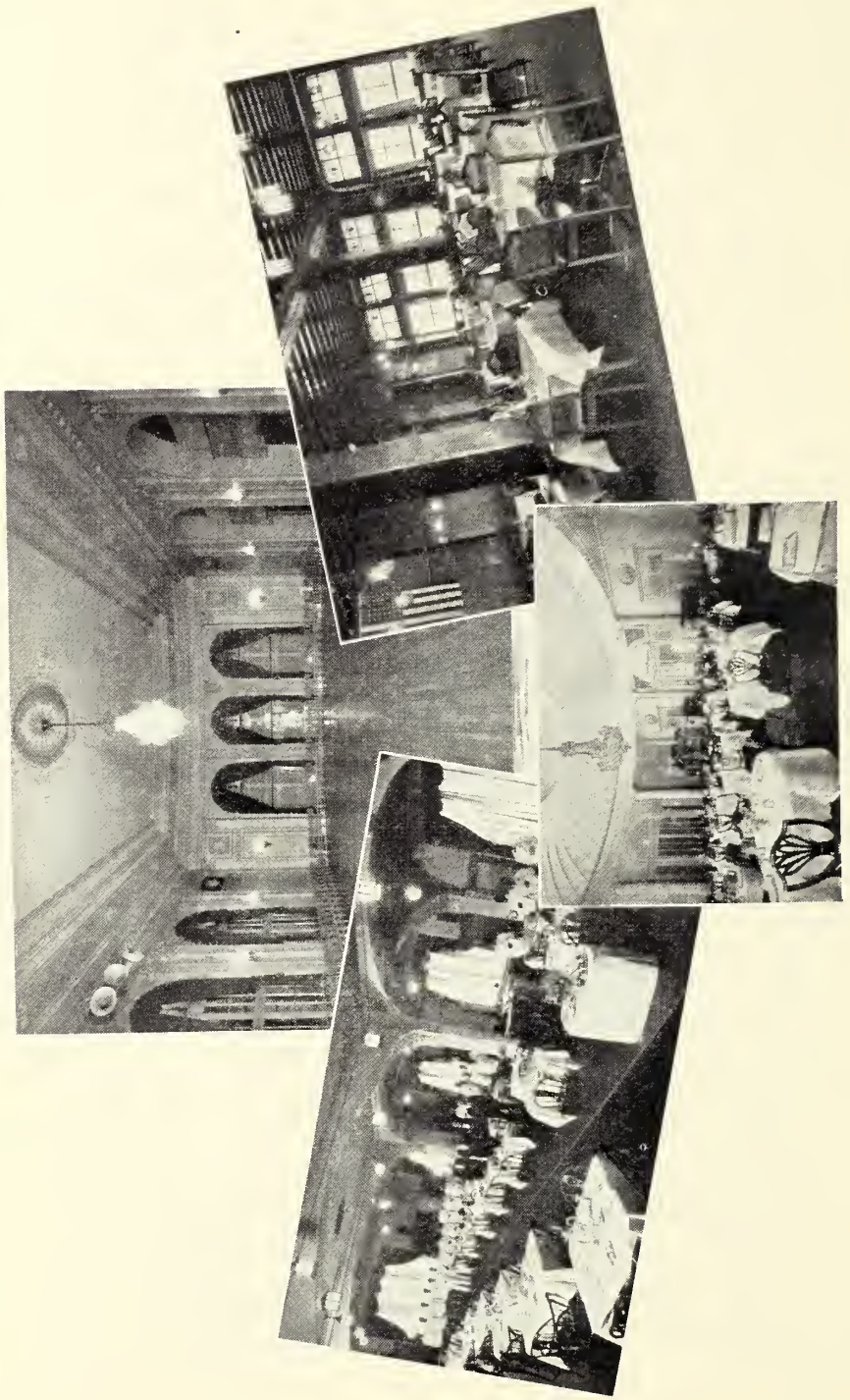
Dr. Shepard was instrumental in forming the first medical society in this vicinity, the Grand River Medical Association, in 1852. Its membership included doctors from Kent, Ionia and Ottawa Counties, six of whom were from Grand Rapids. In 1856, the Grand Rapids Medical and Surgical Society was organized which later was known as the Grand Rapids Medical Society. It had a continuous existence until the Civil war broke out, when it became inactive. But in 1865, after the cessation of military hostilities, interest was revived and the Society entered upon a long period of active work. Meetings were held regularly until 1885 when the organization was disbanded and its activities taken over by the Grand Rapids Academy of Medicine, which was organized in the fall of 1884.

It included most of the prominent physicians in the city and had an exceedingly active existence for over twenty years.

In November, 1889, a meeting of physicians was held in the Morton House for the purpose of organizing a Kent County Medical Society, to be incorporated under the laws of the State of Michigan, and to include all regular practitioners who were graduates of colleges recognized by the American Medical Association. The following officers were elected: President, S. R. Wooster, Grand Rapids; first vice president, O. C. McDannell, Lowell; second vice president, P. Schurtz; third vice president, D. J. Wallace, Sparta; secretary H. W. Catlin, and treasurer, T. D. Bradfield. But the Academy of Medicine remained the popular organization and refused to yield the field to the Kent Society, and as there was no demand for two societies the county organization practically passed out of existence. It



Civic Auditorium—Interior Views



Pantlind Hotel—Interior Views

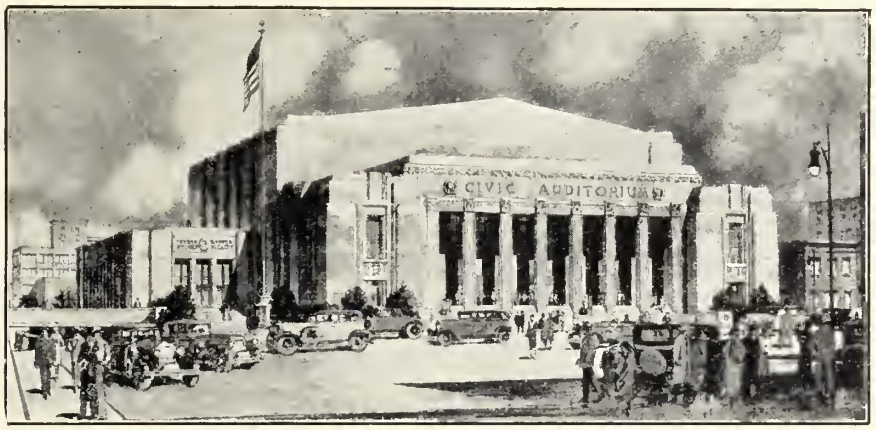
was reorganized, however, in 1902, when it became a component part of the Michigan State Medical Society, which had been reorganized in 1900 after an existence of eighty years. By this plan each county society in the state was entitled to membership in the American Medical Association. It soon became

Dr. Reuben Maurits was instructor in gynecology.

Dr. John Mill Wright was lecturer on materia medica and therapeutics.

The institution graduated forty-seven students in five years, and closed in 1905.

The majority of the distinguished men who were



Civic Auditorium

the recognized society in this community and the Academy of Medicine disbanded.

The Kent County Society has led an active existence; meetings have been held with great regularity; papers have been read before it by many of the leading medical men in the country, and it has exerted a highly beneficial influence in the community. It took an active part in the cancer campaign; in the securing of the first supply of filtered water in the state, one of the first in the nation, in 1915, at a cost of $400,000. It took a leading part in securing the adoption of one of the most up-to-date milk ordinances in the United States in 1928. With its help Grand Rapids organized the first Anti-Tuberculosis Society in the State in March, 1905, antedating the Detroit society by about a month, and the State Society by three years.

It was the first city in the state to have an anti-spitting ordinance; to make free examination of sputum; and to exhibit the large traveling exhibition of the National Tuberculosis Society.

Grand Rapids opened the first Tuberculosis Sanatorium in the State, in the summer of 1906, the second one being established for the care of county patients at Eloise by my old friend, Dr. E. L. Shurley of Detroit.

In 1922 an up-to-date Tuberculosis Sanatorium was erected at a cost of $650,000, with a capacity of 150 patients.

The first Tuberculosis Clinic in the state was established here in 1908; the second was that maintained by the Detroit Board of Health and conducted by Dr. V. C. Vaughan, Jr., who, some may remember, was drowned late in the war while bathing on the coast of France.

In 1895, the Grand Rapids Medical College was incorporated and opened its first session in the fall of 1896. The faculty was composed of forty Grand Rapids physicians, and its list of professors was adorned by such distinguished names as Fuller, Graves, Boise, White, Robertson, Irwin, McBride, Bigham, Lee, Edwards, Best and Roberts.

Dr. James M. DeKraker taught diseases of the chest and physicial diagnosis.

Dr. Louis Chamberlain was instructor in bacteriology.

members of this faculty are also dead. I might say in passing that of the 130 doctors who were in Grand Rapids when I came here in 1887 only four are still alive, namely—Dr. Albertus Nyland, Dr. S. L. Rozema, both of whom are still practicing here; Dr. Schuyler Graves of Pasadena, California, and Dr. H. C. Brigham of Montpelier, Vermont.

Grand Rapids has three hospitals, Blodgett Memorial, Butterworth and St. Mary's.

The Union Benevolent Association which conducts the Blodgett Hospital was founded in 1846 to engage in all kinds of benevolent work such as caring for the aged, infirm, sick and needy. The demand for a hospital was so great that in 1886 it erected a fully equipped institution on College Avenue with a training school for nurses with a two year course.

This was used for thirty years when, in 1916, the present Blodgett Hospital in East Grand Rapids was erected by Mr. John W. Blodgett at a cost of about one million dollars. It has 150 beds.

The original location of Butterworth Hospital, formerly called St. Mark's Home and Hospital, was on Bond Street, where a small frame house was operated for hospital purposes in 1873. Two years later it was moved to Island Street, where its work was continued until 1890, when a large modern institution was erected on the corner of Michigan and Bostwick Street and the name was changed to Butterworth Hospital, being named for Mr. R. E. Butterworth, who gave the site and a considerable amount of money towards its construction. This was used for hospital purposes until the erection of the present Butterworth Hospital in the year 1925 at a cost of $1,415,000 with accommodations for 270 patients.

The original St. Mary's Hospital was opened in an old house at 455 South Lafayette in 1893. In October, 1909, a modern hospital was erected on the corner of Cherry and South Lafayette accommodating 100 patients, and in 1925 an addition was built at a cost of $750,000. Its present capacity is 271 patients.

Grand Rapids has always been proud of the character of its medical men; of their heroism, leadership, scientific attainments, unselfishness and unflagging industry. It was at first planned to mention

a few names here, but I soon realized the futuility of doing so for all who deserve mention might not be recalled. So I will limit myself to two more, whose accomplishments stood out above their fellows in one way or another as the moving picture of memory brings them upon the screen.

Hotel Rowe.

The most prominent man in the medical profession in Grand Rapids for a good many years was Dr. George K. Johnson, who graduated in 1846 from the Cleveland Medical College. He practiced a little while in Pontiac and then in Detroit, where his health broke down, and in 1856 he came to Grand Rapids in the interest of the Detroit and Milwaukee railroad. In the spring of 1859 he was elected mayor. Having sufficiently recovered his health, the next year he decided to practice medicine, which he continued to do until shortly before his death, in 1908, at the age of eighty-six.

Dr. Johnson was an unusual man, an ideal physician, always dignified, courteous, and kind, considerate of his fellow practitioners and beloved by his patients. He had good humor, quiet cheerfulness and a nature sloping to the southern side, which helps enormously in the practice of medicine.

In these days of aggressive assertion it was pleasant to meet a man who had such a marked degree of humility and absence of self conceit. Taciturnity and discreet silence are virtues rarely cultivated in these garrulous days.

Dr. Johnson had an extensive and devoted following and no doctor was ever more missed by his friends and patients.

Another man I must mention is Dr. Reuben Peterson. He graduated at Harvard in 1888, spent two years in Eastern hospitals, and located in Grand Rapids in 1890. He became the first superintendent of Butterworth Hospital, and it was largely due to his efforts that the new institution at once took a commanding position in Western Michigan. He did a good deal of up-to-date surgery, but desiring a larger field moved to Chicago in 1908. A couple of years later he was called to Ann Arbor, where he became director of the University Hospital and Professor of Gynecology and Obstetrics.

When the visiting members of the State Society have nothing else to do, let me suggest that they visit the new club rooms of the Kent County Society which were recently opened in the Medical Arts Building at a cost of $9,000. Some one of the 256 members of the Society will be there to greet you.

MINUTES OF THE SPECIAL MEETING OF THE COUNCIL

In compliance with a call issued by the Chairman, the Council of the Michigan State Medical Society met in special session in Lansing, July 11, 1933, at 8:00 p. m.

Present—Chairman B. R. Corbus, T. P. Treynor, J. E. McIntyre, Henry Carstens, Henry Cook, A. S. Brunk, Julius Powers, T. F. Heavenrich, P. R. Urmston, F. A. Baker, C. E. Boys, J. D. Bruce, President Robb, President-elect George L. Le Fevre, Secretary F. C. Warnshuis, and Editor J. H. Dempster.

1. The Secretary made an extended and detailed report upon the finances of the Society, present resources, bills payable, and further reported upon dues collected imparting the payment of current dues by county societies and the unpaid dues for 1933.

Discussion as to payment of dues from Wayne County Medical Society. President Robb made a statement and presented a bill that had been incurred for legislative expense by the Wayne County Medical Society, that this bill had been paid from state dues which were being withheld, and requested action by the Council.

Upon motion of Cook-McIntyre the bill presented by Dr. Robb in behalf of Wayne County was referred to the Executive Committee for investigation and conference with the State Legislative Committee, and then to report thereon at the September meeting of the Council.

Dr. Carstens, Chairman of the Finance Committee, stated that his committee had conferred with the Secretary regarding the Society's finances and recommended that at the present time no specific action be taken but that the Finance Committee and the Secretary will endeavor to work out our financial problems before the September meeting.

2. The Secretary reported upon the details and arrangements that were being perfected for the Annual Meeting in Grand Rapids.

Upon motion of Boys-Bruce, the Council rescinded the action of the Executive Committee which had determined not to hold a scientific exhibit during the 1933 meeting. Upon motion of Boys-Bruce, the Secretary was instructed to arrange for a scientific exhibit under the supervision of Dr. Wm. M. German and that pending the return of Dr. German to this country the Secretary be instructed to arrange for the scientific exhibits and authorized to incur expenses not to exceed $250.00.

3. Dr. Wm. H. Marshall, Chairman of the special committee on Survey of State Medical Service and Health Agencies, appeared before the Council and outlined the work of his committee in completing its report.

The Council then considered its report to the House of Delegates upon the Survey Committee's activities and recommended action in accordance with the report, which was approved upon motion of Heavenrich-McIntyre.

4. Dr. Boys, Chairman of the Committee on County Societies, supported by Dr. McIntyre, moved that the Secretary undertake a drive to collect the outstanding dues for 1933 and recommended that

the Secretary report the delinquents in each county to the county secretary and request the county secretary to designate those members to whom a personal letter should be sent from the State Society headquarters.

5. Dr. Bruce raised the question of our obligations that were incurred in connection with the Survey Committee's work, and recommended that some steps be taken to immediately pay these expenditures. This recommendation received full discussion by the Council.

Upon motion by Councilor Bruce, supported by Councilor Baker, the Secretary was authorized to negotiate a loan of $3,000 and to place as collateral a sufficient number of the bonds owned by the Society, for the purpose of paying the bills rendered by Dr. Sinai and printing bills that were incurred in printing the report of the Special Committee on Survey of State Medical Service and Health Agencies. This motion was unanimously carried by the Council.

6. There being no further business the Special Meeting of the Council was adjourned, and the Council is to meet in regular session at the Annual Meeting in September, 1933, the date and the hour to be designated by the Chairman.

F. C. Warnshuis, *Secretary.*

SPECIAL MEETING HOUSE OF DELEGATES

Wednesday Morning, July 12, 1933

The special meeting of the House of Delegates of the Michigan State Medical Society, called for Wednesday, July 12, convened at the Olds Hotel, Lansing, Michigan, at 10 a. m., Dr. H. J. Pyle, the Speaker of the House, Grand Rapids, presiding.

The Speaker: The meeting will come to order. We will listen to the report of the Credentials Committee.

Dr. F. E. Reeder (Genesee County): The Credentials Committee has found that there are fifty-five delegates registered and properly endorsed and entitled to be seated in the House.

The Speaker: We will listen to the roll call.

The Secretary: Mr. Speaker, I hold in my hand the signed roll call of the delegates, of which twenty have signed from Wayne and twenty-seven from out in the state. The By-laws provide that a quorum of the House shall be forty per cent of the delegates at the last annual session; forty per cent of ninety-one delegates is thirty-six, and thirty-six would give a quorum. No majority of that quorum shall come from any one county. According to the roll call there is no majority of that number from any one county. According to the Credentials Committee's report there are eight delegates who have not signed the roll call.

I move that the signed roll call just reported constitute the roll call of this House.

The motion was seconded.

The Speaker: If there is no objection on the part of anyone in the assembly the chair will rule that this will constitute the roll call of the House.

Mr. Secretary, will you read the call for this special meeting?

The Secretary: The call for this meeting was printed in the Journal.

The Secretary read the call for the special meeting.

The Speaker: We will now receive the report of the Survey Committee, Dr. W. H. Marshall, Chairman.

SURVEY COMMITTEE REPORT

Dr. W. H. Marshall: Mr. Speaker, Mr. President, Mr. President-Elect, Gentlemen of the House of Delegates: In submitting our report for your evaluation we are hopeful that you will consider it a successful achievement, considering the magnitude of the task and the limited time that was allotted to us. In estimating our accomplishment it will not be amiss to remind you of what you instructed us to do, namely, the accumulation of reliable factual information concerning medical service in Michigan. We have tried to secure honest facts and to arrange those facts in a way that they might possibly have some meaning. We are willing to take full responsibility for our presentation, for throughout the study we have earnestly striven to subdue the tyranny of those prejudices which we inevitably bring with us.

Our approach has been as extensive as time would permit. However, none of you realizes the incompleteness of the study better than we do. We have accumulated much material that we have been unable to use because we considered it lacking in completeness. The need of further investigations will be presented later on. In this report we have endeavored to lay down basic principles upon which these further intensive studies may be built.

While the committee is entitled to the privilege of drawing a few brief conclusions as a result of an intimate knowledge of the facts, the solution of the dilemma properly belongs to the House of Delegates. You will recall the wise crack: "If all the economists in the world were laid end to end they would not reach a conclusion," and, further, "that it would be a good thing." But I would remind you that we are listening to economists more intently than we have previously done. We must not expect great miracles. The solution of social and economic problems is not as simple as pressing a button. But if we are open-minded, if we overcome our inertia, we may take a few steps forward.

Since we began our survey our people have been greatly concerned and deeply affected by an economic collapse unprecedented in our industrial history. The physical and mental injuries which have followed in its wake are of serious magnitude. We fully recognize and deeply appreciate the patience and perseverance shown by our profession in these trying times. There is abundant evidence to show that in this crisis men have become more conscious of the ties which are uniting them more closely as brothers. The co-operative spirit is looming up largely and the older individualistic selfishness, Bourbonism and Chauvinism seem to be fading out of the picture. The world is trying to find better ways to insure happier human relationships.

The past year has been a rapidly moving one and many values have been salvaged. We are beginning to realize that we cannot have the age that is gone and we must accept the new era as ours. We are hopeful that it will be a better one, and it will be if the leaders of public opinion and men of sound judgment will study all the factors involved and will work earnestly for the common good. This disastrous year has shown that the self help of rugged individualism has failed and that the help of organized charities can no longer adequately relieve distress. The care of the indigent has become a burden too great for our profession to bear and society must assume this service and pay the physician in part for his work.

The introduction of medical service to the unemployed has forced a new principle on society—

the right of every citizen to medical care, whether he can pay for it or not. This principle places medical care in the same place as the right to food, clothing, shelter, and fuel. It is so fully established that we can never go back to old-time policies. Much that we today consider temporary will undoubtedly become permanent.

The most casual observer must admit that there has been a revolutionary alteration in our form of government during the past four months. The four acts dealing with agriculture, securities, banking and industry are in effect revolutionary. Few of us realize just what has been happening, and few of us can grasp the full import of the ideas which are being used to return us to prosperity. In fact, I doubt if anyone does. But the fact remains that as a nation we appear to have deserted the older economic theories which have proven to be so woefully inadequate.

At such a time Utopias will be offered freely and much social legislation is to be expected. Since writing this, this morning, I noticed in the *Free Press* from Washington that President Roosevelt had formed a peace-time Council of War today to direct the widening governmental recovery activities. The enlargement of the scope of governmental activities alarms many of us, but we must realize that it has been due to many forces. The present crisis has demanded the collective aid of the state. Again, we have witnessed the failure of certain interests to fulfill their allotted tasks, and as a result the state has intervened. So far there has been no disposition to regulate medical practice, because we as a group have not failed so shamefully as certain financial and industrial groups have.

Our people are beginning to recognize the superior moral and ethical qualities of a profession that has not deserted them in the time of calamity, but has carried on faithfully and effectively. But it is undeniable that unless we keep our house in order we will face the peril of state regulation.

President Roosevelt, in his address at the adjournment of Congress, revived the 12th Century idea of guilds or coöperative organizations planned to work out their own program for their specialized tasks. This most definitely suggests a field of activity for our society.

I am fully aware that no Utopia, however reasonable it may appear, has ever worked. For man is not a very reasonable animal and he is still too illogical to fully appreciate a planned society. The emotional type of politicians who know their people will continue to fight those who are more intelligent. It is unlikely that either will win a decisive victory, but we hope that we shall move a few steps forward and become slightly more rational. One good reason for this hope is that the old-time politicians are fearful of the way things are going and do not know how to stop them.

A study of industrial medicine was assigned to us by the original resolution. As stated on page 159 of our report, we have accumulated much material through the coöperation of the Michigan Manufacturers' Association, but we did not consider it sufficiently valuable to warrant conclusions.

Moreover, the Bureau of Medical Economics of the American Medical Assocaition was engaged in a comprehensive study of medical relations under workmen's compensation. This report is just off the press and should be read by everyone interested in the problems of industrial medicine.

Health Insurance.—This term was not mentioned in the resolution adopted by the House of Delegates two years ago. But as time went on, it became apparent that the subject could be ignored no longer. Upon the advice of the Council at their January meeting, we began a study of the various schemes that are in operation in forty or more countries, carefully noting their advantages and disadvantages. We were convinced that no existing scheme was entirely satisfactory. Therefore, we have formulated principles which we think should be adopted in planning an insurance system.

We should realize that insurance plans are not particularly radical, but are in the middle of the channel between the Scylla of individualism and the Charybdis of complete socialization. Insurance would seem to be the most logical plan of providing adequate medical service for those groups which have a definite but rather low income. Moreover, the plan can be operated without destroying the time-honored personal relationship between the doctor and patient.

It is notworthy that after a long trial in European countries insurance plans are not being abandoned, but on the contrary are being made more inclusive of a larger percentage of the population. Further, the type of service is being extended, so that specialists and hospital care are now being included. The reaction of foreign medical societies is no longer antagonistic; they are now aiding in the direction of these newer developments. Insurance is commonly accepted by the medical profession in other countries.

The same forces that brought insurance abroad are and have been operating in the United States. The recommendations of your committee are the logical conclusions of the factual data presented in the following chapters of our report:

Chapter III. Population Income and Cost of Living. Parenthetically may I say that that recent study by the department of economics at the University of Michigan is one of the most splendid studies of the economics of Michigan in a general way that has ever been published.

Chapter IV. Illness, its incidence, care and costs.

Chapter V. The Distribution of Physicians.

Chapter VI. The Income of Physicians.

That this is an immediate rather than a remote problem is evidenced by the fact that commercial insurance corporations in many parts of the United States, including Michigan, see tremendous possibilities for profit. *The question, therefore, is not so much whether health insurance is to be adopted, but rather it is one of under whose auspices shall it function.*

Future Study.—The committee realizes that medicines faces not one, but rather a multitude of problems. We fully recognize that there are many large gaps in our knowledge concerning many conditions which must eventually be faced. An analysis of the relative weights of medical economic problems in Michigan must lead to the conclusion that our major efforts for the immediate future must be concentrated upon three aspects of medicine:

1. A more satisfactory program for the care of the indigent.

2. A program for health insurance for certain income groups.

3. A program for the general improvement of the quality of medical service, for it is upon the quality of performance that we stand or fall as a profession. This will entail a study of medical education, both undergraduate and postgraduate, as well as state board licensure.

Your committee feels that an immediate attack upon these major problems will result, if successful, in the elimination of many minor problems that have served to irritate both the public and the profession for many years.

Conclusion.—A great responsibility is yours, as well as a great opportunity. You must meet the

challenge to go forward and to reach new heights of service. President Roosevelt has recently said, "Must we go on in many groping, disorganized, separate units, or shall we move on as a great team to victory?" And, "We must leave the old depths of self-assertion and rise to new heights of coöperative good-will."

You should welcome this adventure because of its extreme interests and its vital importance. If you keep your heads, if you maintain your usual courage, if you do not confound emotionalism and prejudice with thinking, your efforts shall not be entirely fruitless.

COUNCIL'S REPORT TO SPECIAL MEETING OF THE HOUSE OF DELEGATES, JULY 12, 1933

Gentlemen:

Your Council recognizes that the Survey Committee's report constitutes a noteworthy and valuable contribution to public health and to medical service in Michigan. Your Council joins the House of Delegates in congratulating this special committee upon its excellent fact finding report and in expressing sincere appreciation to each member of the Committee for the time they devoted to their task in discharging their Committee duties.

Your Council recommends that the House of Delegates record in suitable words its official appreciation.

Appended to this communication is a summarized statement of expenditures incurred to July 1, 1933, to the amount of $9,764.06.

Your Council is impelled to direct attention to the final conclusion of the Committee which is as follows:

"The Committee wishes to record its knowledge that the foregoing conclusions and recommendations constitute only the first steps towards the solution of medical problems. It feels that the report has accomplished two things:

"First, a clarification of the problems in Michigan and, second, a declaration of certain broad principles upon which to build the future structure of medical service. If there is agreement among the members of the profession that these principles are sound, future progress should be rapid and effective.

"To paraphrase Salter, the committee has taken the system it knows, suggesting how it might be strengthened where it is weak, repaired where it has crumbled, and rebuilt where new needs require additions to its fabric. 'It is our system in which we have grown up that we must reform—and in part transform.'"

If this House of Delegates concurs in this conclusion then your Council submits the following recommendations:

1. That the Committee be discharged with expressions of great appreciation for the work it has accomplished so commendably.

2. That the President be authorized to appoint a Committee on Economics, in accordance with the Committee's recommendations, and that in making appointments the President be requested to accord preference to the members of the Survey Committee who are intimately familiar with the work.

3. That the Committee on Economics be instructed:

(A) To develop further studies and apply the recommendations contained in the Survey Report.

(B) That it be empowered to appoint subcommittees to consider assigned subjects and problems.

(C) That it be instructed to formulate a specific report of recommended action to be enacted by the House of Delegates at the September, 1933, Annual Meeting in Grand Rapids.

(D) That the Committee continue the study of health insurance with the view of making recommendations.

4. That the House of Delegates approve the report in principle and as a guide for future study and organizational activity, reserving for the House of Delegates, however, the right to modify specific recommendations as experience and social changes may create new facts and conditions.

5. That County Societies continue to study the report for the purpose of applying the guiding recommendations in the solution of specific local problems.

6. That the Council be authorized to solicit and accept funds to continue the recommended studies and accomplish the application of determined policies.

Your Council suggests that the deliberations of the Special Meeting conform to the foregoing recommendations.

SECTION II

In conformity with the call of this Special Meeting, your Council recommends that:

In view of the reception of a report containing specific recommendations upon the Survey Report at your September, 1933, meeting and,

In order that your enactments may be recorded after mature deliberation, that,

The House of Delegates convene in Annual Session in Grand Rapids at 2:00 p. m. on Monday, September 11, 1933, and pursue its deliberations by devoting Monday afternoon and evening to the reception and action on the report of the Committee on Economics and then conform to the Order of Business of the House following the final disposal of the report of the Committee on Economics.

SECTION III

Because of changing economic and social conditions your Council realizes the necessity of revision of certain sections of our Constitution and By-Laws and causing them to conform to recent enactments of the American Medical Association.

Your Council recommends that you authorize the appointment of a Special Committee on Revision of the Constitution and By-Laws by the President with the advice of the Council. This Committee to report at the September meeting.

Respectfully submitted,
The Council
By B. R. Corbus, *Chairman.*

The Secretary presented an itemized statement of the expenses incurred by the Survey Committee as follows:

SURVEY COMMITTEE EXPENSE

To July 1, 1933

Travel	$1,082.51	
Hotel	223.05	
Clerical	900.30	
Printing	1,320.81	
Postage	666.50	
Telephone	124.40	
Supplies	289.16	
Statistical	1,307.33	
Miscellaneous—Kent County	100.00	
Dr. Sinai	3,750.00	
Total cost		$9,764.06

Of the above amount we still owe:

Dr. Sinai	$1,500.00	
Travel expense	286.57	
Clerical	65.55	
Telephone	40.27	
Postage	8.50	
Office supplies	30.53	
Edwards Co.—Printing	933.14	
F. C. Warnshuis	6.36	
Unpaid		$2,870.92

There may he Committee Memhers Expenses yet unpaid.

Dissection of Expense

By Committee		
Travel	$ 658.88	
Hotel	203.75	
Clerical	48.25	
Printing and Stationery	372.67	
Postage	8.00	
Telephone	16.80	
Miscellaneous—Kent County	100.00	
		$1,408.35
Dr. Sinai		
Travel	$ 130.70	
Hotel	19.30	
Clerical	786.50	
Printing	15.00	
Postage	650.00	
Statistical	1,307.33	
Telephone	67.33	
Office supplies	258.63	
Salary	2,250.00	
		5,484.79
Unpaid Bills		2,870.92
		$9,764.06

Upon motion of Powers-Treynor, this report was directed to be presented to the House of Delegates.

The Speaker: At this point the Chair would like to ask if there is any communication from the Council?

The Speaker: I believe the Secretary has a communication that he would like to read at this moment.

The Secretary: The special committee upon instruetion and at the request of the Council and the President of your Society extended an invitation to Dr. Olin West, Secretary of the American Medical Association, and to Dr. Leland to attend this session. As a matter of record, I should like to enter Dr. West's reply.

"Your letter of July 5 has just come to my desk. While I sincerely appreciate the very kind invitation extended in your letter, I cannot possibly attend the special meeting of the House of Delegates of the Michigan State Medical Society to be held in Lansing on July 12, for the reason that I shall be at the meeting of the Medical Association of Montana on that very day. Were it not for the fact that I put off this visit to the Medical Association of Montana for several years, in spite of the most insistent invitations, and for the further fact that their program has already been published and distrihuted, I would attempt to cancel my engagement so that I might appear and might hear the important discussions which I am sure will take place at Lansing.

"I think it would be extremely helpful to me to have an opportunity to hear these discussions, and I am sorry indeed that I cannot have that privilege. Unfortunately Dr. Leland has just left on his vacation, which I think he needed to take. He will not return for nearly two weeks, and it is rather difficult to get in touch with him. I know that he, too, will be sorry that he cannot have the opportunity to be present at the meeting of the House of Delegates at Lansing.

"I am, of course, tremendously interested in the Michigan report and shall he more interested in any official action that may be taken at the Lansing session. I hope that every phase of the problems which will be under consideration at that time will receive the most thorough consideration, especially with a view to safeguarding the future interests of medicine, and even more especially the preservation of professional aspects of medical practice. I am quite confident that the delegates of the Michigan State Medical Society will do their best to work ont a proper solution.

"With most cordial good wishes, I am

"Yours very truly,

(Signed) "OLIN WEST."

I merely offer this as a matter of record, Mr. Speaker.

RESOLUTION

The Speaker: Gentlemen, you have received the report and heard the recommendations of the Chairman of the Council. What is your pleasure?

Dr. Ecklund (Oakland County): I should like to read and move the adoption of the following resolution:

"BE IT RESOLVED, First, that the report of the special committee on survey of state medical services and health agencies be accepted; that the committee be discharged with expressions of sincere appreciation for its labors and valuable contributions and its personal time consumed in the study and in the preparation of this report.

"Second, That a permanent committee of five on Medical Economics be appointed by the President, this committee to be instructed to study this report and any recommendations made by the Council and the House of Delegates, and to report at the annual meeting at 2 p. m., September 11, 1933.

"Third, That county societies be advised to appoint Committees on Medical Economics to coöperate with this state committee.

"Fourth, That the House of Delegates convene in annual session in Grand Rapids at 2 p. m., September 11, 1933, and after organization the report of the Committee on Medical Economics be made the first order of business.

"Fifth, That the President appoint a committee of five on amendments to the Constitution and By-Laws to report to the 1933 annual meeting.

I move the adoption of the resolution.

The motion was seconded by Dr. Plaggemeyer, Wayne County.

The Speaker: Gentlemen, you have heard the motion. Is there any discussion?

Dr. J. D. Brook (Kent County): I have noticed in this resolution, and also in that one of Dr. Corbus, that the President be requested to appoint this committee. I have nothing against the President appointing committees, but we are a House of Delegates and we have our executive officers and our Speaker. As under the rules it is the prerogative of the Speaker, and rightly his place, to appoint these committees, I would like to suggest that an amendment be made to the resolution, that the word "Speaker" be substituted for "President."

Dr. Andrew Biddle (Wayne County): I should like to ask Dr. Brook if that means that the committee appointed by the President would be limited to the House of Delegates.

Dr. Brook: Oh, no.

Dr. Biddle: That is all right then.

The Speaker: Gentlemen, you have heard the motion and the amendment. Is there a second?

Dr. A. V. Wenger (Kent County): I support Dr. Brook's motion.

Dr. H. A. Luce: I would like to support this motion, but I must support it with an exception. I am entirely in accord with the principles in the motion, but somehow or other I have a feeling that we have come over here to Lansing for the sake of learning something from one another and for the advice and help of this committee which is about to be appointed. A committee of the whole in executive session for an hour or so, following the adoption of this resolution, would seem to me of benefit to the profession.

I would support the motion with that thought in view.

The Speaker: Is there further discussion, gentlemen? If not, the question now is on the amendment as stated by Dr. Brook and seconded by Dr. Wenger, that the word "Speaker" be substituted for the word "President" in the resolution.

Dr. Brook: May I elucidate just a bit further? I don't wish to create the impression that I haven't faith in our President to appoint a proper committee. It is only a matter of procedure that I have in mind. We are a House of Delegates and we have our presiding officer and I believe that as such the Speaker is entitled to appoint the committees from this House. That is the only thing I have in mind. I don't eare whether the members are all from this House or whether they are members from the Society. I am perfectly willing that he confer with the President. I have no personal axe to grind because Dr. Pyle comes from Grand Rapids—not at all. I just make the point that it is a legal and proper parliamentary procedure that the Speaker appoint the committee.

Dr. Biddle: I would agree with Dr. Brook that that committee be limited to the House of Delegates, but I don't think we have any right to appoint people outside of the House of Delegates. If we limit it to this House of Delegates I say most decidedly it is all right, but the moment you step beyond that boundary you get into the whole society, and if any committee should be appointed from the whole society it should be appointed by the President.

The Secretary: Chapter 3 of the By-Laws, House of Delegates, Section 7, sub-section (f), reads:

"It shall have the authority to appoint committees, standing or special, from among its members or the members of the society. Such committees are to report to the House of Delegates, and their members may participate in the debate upon their committee's report."

The Speaker: Gentlemen, you have heard Dr. Brook's amendment to the motion. Is there any further discussion? All in favor of the amendment say "aye," contrary say "no." The "ayes" have it and the amendment is carried.

The question now is on the motion as put by Dr. Ecklund and amended by Dr. Brook. All in favor of the motion say "aye," contrary "no." The "ayes" have it and the motion is carried.

Now, Dr. Luce, I would like to give you the floor on your suggestions a little while ago.

Dr. Luce: Mr. Chairman, I move that this body resolve itself into a committee of the whole for a discussion of the matter which is presented to the committee about to be appointed.

The motion was seconded by Dr. Ecklund.

The Speaker: The Chair feels that as long as it seems to be his prerogative to appoint the committee, that would be a great help. Is there any discussion of the motion?

The Secretary: Mr. Speaker, may I suggest that there are a number of doctors who are members in good standing of our state and county medical societies. I would suggest that members in good standing be permitted to attend the executive session in order that they may be able to gain information and take it home to their respective communities.

Dr. Luce: I accept the suggestion.

The Speaker: Gentlemen, you have heard the motion. The question now is that we go into a committee of the whole and go into a discussion of these matters.

Dr. Louis J. Hirschman (Wayne County): With the maker's and seconder's permission, I suggest that officers of constituent societies be allowed the privilege of participating.

The Speaker: If there is no objection on the part of the assembly the Chair will accept Dr. Hirschman's suggestion that the officers of the societies be allowed to attend the meeting of the committee of the whole. All in favor say "aye," contrary "no." The motion is carried.

The Chair will appoint Dr. Luce as Chairman of this committee of the whole.

COMMITTEE OF THE WHOLE

The House went into a meeting of the committee of the whole at 10:50 a. m., Dr. H. A. Luce presiding.

The Chairman: Gentlemen, the committee of the whole has now organized from this House. The Chair would be pleased to accept the recommendation and the motion that we go into executive session.

Dr. Wm. J. Stapleton, Jr. (Wayne County): I move that we go into executive session.

The motion was seconded by Dr. W. C. Ellet, Berrien County.

The Chairman: You have heard the motion. Those in favor say "aye," those opposed say "no." It is carried.

The Chair will automatically rule that the discussion be limited to five minutes.

Dr. Hirschman: I move, sir, that the Chair appoint a Sergeant-at-Arms to see that every person in this House is properly qualified to sit in this committee.

The Chairman: Without a motion the Chair rules that it was the prerogative and duty of the Chair to already have appointed a Sergeant-at-Arms. He will appoint Dr. Ellet of Berrien and Dr. Curtis of Wayne.

The Chairman: The House is now open for informal discussion. If there is no objection the Chair will call upon Dr. Sinai to make a few statements relative to the salient features of the report.

Dr. Sinai: Mr. Speaker and Members: I had no idea that I was to be called upon except to explain certain of the factual data if explanations were necessary.

You have before you the report prepared by Dr. Marshall's committee, and I want to take the opportunity to express my pleasure at having worked with that committee. The committee entered upon its task with perhaps a number of preconceived opinions—any intelligent man would have preconceived opinions—but as the factual data was collected and as it was presented to the various members of the committee, gradually the committee approached cohesion and there was little doubt but that toward the end the members would see eye concerning the outcome and the conclusions that must be drawn from the factual information.

Actually the report presented to you divides the basic problems in medical care in Michigan into two main sections. In one section you have the urban problems; in the other section you have the rural problems in medical economics. In the urban problem there is presented the need for a program for the care of the indigent, that problem which has been perhaps more irksome to the profession than any single problem. Then there is presented the necesstiy for developing some plan, some system, to equalize the burden for the lower income group of the population. Those are the two basic problems in urban communities, not only in Michigan, but anywhere in the country.

In the rural districts in this state you have those same two, care of the indigent is item one, a system or a plan for equalizing the burden is item two.

Then for certain sections of the state development of medical facilities so that service may be provided to the sparsely settled regions. Those are the problems that you must face in the beginning.

There are a great many other problems, some of them minor, a few approaching majority, that must be approached in proper sequence.

One item that has come to the attention of the committee and I want to say a word concerning is the news stories that have appeared in a great many of the papers of the state, bringing up the question, because I understand the question will be brought up if I don't bring it up.

I will tell you the story behind the newspaper stories and then if any criticism is necessary that is within your power and your judgment.

In the beginning, the committee, having finished its task in the presentation of the report, concluded that an educational program would be necessary if the conclusions were followed out. You note in reading the conclusions that each one will require medical support and public support, cooperative effort as well. It was therefore decided that following out the usual conservative procedure in medicine, articles would he prepared in the form of digests, the salient features in each chapter would be presented, the public side of the picture, the medical side of the picture, and certain other problems. That was the original program planned.

The committee further realized that it did not know too much about news values, news stories, and the reception that might be given to these stories by newspapers. Therefore, the committee concluded that it would seek the advice of the authorities in the field, the newspapers themselves, and that advice was worth while, as I will show you in a moment.

The newspapers, the newspaper men approached, said: "All of these stories that have been prepared have great news value, but if the stories appear beginning July 13 after we are informed that the House of Delegates of the state society has already taken action concerning the conclusions and recommendations, the stories will amount to an anticlimax." They said further that there isn't one enterprising newspaper in the state that will not be able to obtain the complete report, and if it becomes public property as soon as the House of Delegates takes its action, then it means that the newspapers will have free swing to prepare their own material and to stress only the conclusions and the recommendations.

It was realized by the committee that it was in a very difficult place. It was faced, on one side, with the conservatism of medicine concerning news stories of actions taken; it was faced on the other side with the need for public education, since there were not enough reports to go around, for the need for medical education concerning the factual information that had been submitted chapter by chapter.

Incidentally, in connection with these news values, the committee was faced with the problem of whether or not the newspapers would publish the stories in toto or whether

they would garble or whether they would select or whether they would miss chapters entirely. The committee realized that unless the news stories were presented in a logical sequence there would be little possibility of that coöperative effort arising from this educational procedure.

The news men in Detroit who were approached, one newspaper in particular, said when the committee informed this newspaper that it would be willing to submit to it exclusive articles: "We are highly flattered at the committee's confidence in our newspaper. However" (and this is an unusual demonstration of the newspaper fraternity—perhaps not, I don't know enough about the newspapers, but to me at least it was unusual), "we realize that medicine in Michigan is developing something new, that the attitude of medicine apparently is changing in attitude, their reactions toward news stories and public education. We will publish the material, all of the material, which is presented in story form, all of the material from the report." By all of the material I mean fifty-five pages of manuscript. He said, "We will take it complete, but we think that this movement is entirely too important to risk arousing the antagonism of any other important newspaper in the city, and while we will publish the report in full, we recommend, we suggest to you, that you present the articles to all of the newspapers in the city as well as to all of the newspapers in the state, because we see here the evidences of a new movement in medicine, we see here the attention being given by medicine to a new program of public welfare."

That was the background for the publication of the articles, and then one morning I received a telephone call from Detroit. The committee had already acted, the committee was faced with an emergency, it had acted upon that emergency. I received this call saying: Undoubtedly criticism will be aroused because the factual data and the factual data only will be presented to the newspapers. It wasn't my burden. My task was finished. My job with the State Medical Society had been completed. The chairman of the committee was out of the city; another member of the committee was out of his city. The task, as I saw it, was to get in touch with the Chairman of the Council of the State Society and say, "Here is the problem. The Chairman acted upon the presentation of the factual information, and if there is anything to which we are able to swear concerning its validity it is the factual information." Therefore the Chairman of the Council wired ordering the release of the newspaper material, a release of the stories. Here they were, ready to go.

That is the story behind the newspaper stories that have appeared in the state carrying the factual information, presenting the physician's position to the public, presenting the public's position to the physician. If the committee took too much power the committee was acting in an emergency.

That, then, was the report. The recommendations in logical sequence follow along, the committee believes, from the factual information presented. It is the recommendations, I believe, which will tell not only for Michigan but will tell for a good many states in the Union where medicine is going to be next year, the year after, five or ten years hence.

The Chairman: It is for the benefit of the medical profession in the State of Michigan and it is of great help for the committee that is about to be appointed that we have an open and frank discussion of this matter. If necessary, the Chair is going to call upon different members. Let that not be necessary.

Dr. Greene (Shiawassee County): All I have to say is that for some reason or other this House of Delegates seems to be tongue-tied. Now we obviously cannot consider all the factual data that this committee has secured, and it seems that the best way to set off the fireworks is to take up the recommendations of the committee and call for a discussion on those. Those recommendations sum up their opinions, and they are what this new committee will wish to learn our opinions about.

The Chairman: Recommendations are in order. Chapter 12. The first topic is the Committee on Medical Economics, page 170.

Dr. Hirschman: In order to bring the matter up for proper discussion, I move, sir, that this committee recommend to the House of Delegates the adoption, on page 170, Chapter 12, of the first three recommendations of the committee, No. 1, No. 2, and No. 3.

That brings it before the House.

Dr. Carl F. Moll (Genesee County): I support Dr. Hirschman's motion.

The Chairman: You have heard Dr. Hirschman's motion. It is supported. Those in favor say "aye," opposed "no." It is carried.

The next is Health Insurance, the gist of which is at the bottom of page 171. The recommendations of the committee are as follows: "First, that the House of Delegates approve the principle of health insurance."

What is your pleasure in regard to the first principle?

Dr. W. C. Ellet (Berrien County): I move that the House of Delegates pass that up for the time being, as far as moving the adoption of its principle is concerned. This committee work, while it has been very comprehensive, is still in an early stage yet. It is our understanding that another committee will be appointed to carry on this work. Before we approve the principle, let us know more about it.

The Chairman: Do you make that in the form of a motion?

Dr. Ellet: I make that in the form of a motion.

The motion was seconded by Dr. Garber, of Muskegon.

Dr. Biddle: Mr. Chairman and Gentlemen of the Committee of the Whole: I voice my own opinion very strongly and I feel that I voice the opinion of many members of the Wayne County Medical Society in which this matter has been discussed. We do not approve of adopting the principle of insurance at the present time. We do not feel that any person can tell us where it will lead to. We do know, however, that once this is adopted in principle it will be broadcast all over the state, possibly all over the nation, that the Michigan State Medical Society adopts the principle of health insurance.

If we do such a thing I feel that we will invite to the State of Michigan all kinds of insurance which will try to get by with the least possible benefit to the medical profession. If we do not adopt this insurance, but go on as we feel we should and study the insurance matter, we will invite to the profession of Michigan the best that each insurance company offers, and therefore I feel that to adopt the principle without defining what conditions shall be adopted is wrong.

I therefore, if I may, Mr. Chairman, object to the motion as far as I am concerned and as far as some of the Wayne County Medical Society members are concerned, without giving the matter further study, and object to the placing on record of the adoption of a principle so vital to our interests until we know how that principle is going to work out, what forces it is going to bring to the State of Michigan, and how eventually it will affect the profession.

I don't question that there will be some form adopted, but to give consent in whole at present to such principle or to adopt such principle I doubt very much would be wise.

Dr. Rupp (Wayne County): I would just like to ask one question of the committee. They say they endorse the principle. Will some member of that committee clearly define what principle they have in mind? Give us the details of what they mean when they say endorse the principle.

Dr. Garber (Muskegon): I have a good many different ideas in discussing this matter, because I feel I am not as fully informed on it as I should like to be. I express the feeling of our entire society when I say that we have not enough data, the thing has not been sufficiently worked out to make us feel that we care to commit ourselves to an abstract principle, and that is what it amounts to.

We all appreciate very greatly the amount of work and the kind and quality of work that has been done by this committee. We have no criticism whatever, but a good many of us fail to see that the conclusions drawn are necessary conclusions; a good many of us have a feeling that at least some of us have started out with a preconceived idea which we have followed through on this thing. Many of us have given up our pre-conceived ideas probably, but running all through is the golden thread of something which we are a little bit afraid of, a little bit different, and as an older member I confess that it is probably, for me, difficult to switch immediately.

It seems to me that before we can decide upon this question at all we want to know something more definite regarding the matter. Just what do we mean? It is a very fashionable thing today to embark on new plans and new ideas; we are in a new era; many of us probably are fortunate or unfortunate enough to know that some six or seven years ago we were again in a new era, all the old economic theories had faded, all the old principles of values underlying things were dissipated and we were paying for things on the basis of what they could earn just at that time, and many of our conclusions led us into false positions. Just because we feel we are in a new era, we have started on a new tangent that the world has changed, which doesn't necessarily change human nature. If you will go back over history you will find that Macaulay discussed the same thing very early; if you go back to '57 you find that the world was out of joint and all the old, steadfast things had disappeared. Then came along new things that gave us a new start and a new outlook.

I am not prepared to say and I don't necessarily feel that all this expression of a new era is exactly wrong or right, but we don't really change human nature very much by these expressions of things. We are all pretty selfish, we are all following out our own selfish needs and our desires and aims.

Now just how far is this thing going to carry us, and how far are we going? Are we going to be governed entirely by altruism and altruistic ideas, and how far are we going to be governed by selfish ideas?

I confess frankly that to set aside a great class of people under a living wage who are unable to pay anything raises considerable question of doubt in my mind. To set an arbitrary wage, say $1200 a year, or $1300 a year, or $1000 a year or whatever it might be, and to say that all under that amount or all up to that amount are not able to pay for medical care is to fly against the experiences of all of us. You go into almost any town and you will find home after home, thousands of them, built by men who never earned $1200 in their lives, and they are paying their doctor bills, too.

Dr. Rupp: May I again insist that we get an answer from this committee as to what they mean by the principle of insurance. After enumerating for two pages various things about insurance, they turn around and say accept the principle of insurance. If it is such an unworkable and impractical thing as to upset our old past scheme of medical practice and all the practical ways that it has been applied, let

us hear what practical way they have of avoiding this. Let's hear what principle they have in mind.

Dr. Marshall: May I state the definition briefly thus: Group purchase or equalization of the economic burden of medical care for lower income groups.

I don't think it can be more briefly stated than that: equalization of the economic burden of lower income groups.

While I am on my feet, in reply to Dr. Garber's statements I think he should read Chapter 1 a little more carefully again before we say we can go back to old days. In that chapter we deal with the picture of the growth, the evolution of medicine. You have all come into a moving picture in the middle of the reel and you didn't know what it was all about. No one can look at medicine today and know what it is all about, but in that chapter you see the rise of medicine from the simple relationship of the general practitioner, the pharmacist and the patient, to the present time when as the result of research, as the result of new discoveries, we have some twenty-five or more specialties listed by the American Medical Association, and it doesn't by any means include all the specialties there are.

We can talk about it as much as we like, but research is going to make more specialties all the time, so we cannot go back to the old simple relationship of the doctor, the pharmacist and the patient.

Dr. Hirschman: I wish to offer a substitute motion as follows: that we delete Section 1 of this recommendation, which reads as follows: "that the House of Delegates approve the principle of health insurance." I move that we delete that sentence entirely and that the reading of Section 1 on the bottom of page 171 be as follows: "That the Committee on Medical Economics be directed to study and prepare and present for the consideration of the House of Delegates a plan or plans for health insurance, provided, however, that such a plan or plans shall be based upon the following policies," with (a), (b), (c) and (d) just the same as at present. In other words, we have added the word "study" before "prepare" and we have changed the word "approval" to "consideration," which directs the Committee on Economics to give further study to this problem and then to report to the House of Delegates at its subsequent meeting. Anything that we adopt today we adopt and we are certainly not ready to adopt these recommendations, excellent though they are, without further study by this new committee which is specifically appointed to give it further study. I therefore make this substitute motion.

Dr. Ellet: I rise to a point of order. I believe that my original motion asked that this first section be put aside and not considered at this time.

Dr. Hirschman: My substitute motion concurs with the doctor's but makes it more inclusive and saves time on a matter about which I think there can be no discord.

The substitute motion was seconded by three members of the House.

The Chairman: Discussion on the substitute motion.

Dr. Ecklund: In discussing this particular problem with many of the doctors from Oakland County, we have felt just as Dr. Hirschman apparently feels, and many others from Wayne, that the emphasis must be placed on these four basic principles for the time being. In other words, we came more or less instructed from many of the men from Oakland County that the reading should be as follows: "That the House of Delegates disapprove of the principle of health insurance unless based upon the four principles as enunciated here under (a), (b), (c) and (d)."

In other words, the emphasis must be placed on those principles. Anybody who attempts to originate or develop a plan of health insurance, whether it be an insurance company or a medical society, must be actuated by those four principles in order in any way to fit in with the ambitions and desires of the doctor himself.

Dr. J. D. Curtis (Wayne County): I would like to ask Dr. Marshall or Dr. Sinai if their principles of health insurance as they are proposed are not very comparable to our workmen's compensation act. This may be in the hands of the doctor when it first starts up, but how long will it be before the insurance companies have it out of the hands of the doctors and in their own hands. How long will it be "free choice of physician"? When the workmen's compensation act was inaugurated there was free choice of physician.

Before this House of Delegates in Pontiac we were told that the individual who was getting workmen's compensation had no right to choose his own physician, that the insurance company told him whom he was to get. May I ask the committee how they would expect to obviate such happenings?

Dr. Sinai: I am pushed forward by Dr. Marshall. I don't think anyone is in a position to answer conclusively certain of the questions presented by Dr. Curtis. The facts are, relative to any parallel consideration of workmen's compensation and health insurance, that the failure in workmen's compensation, as I see it, is very directly attributable to the failure of the profession in leading the way into workmen's compensation.

Here is a report on workmen's compensation just off the press by the A. M. A., that tells the story of what happened much better, much more concisely, than I can tell it. Those who have been at all interested in the probabilities—I don't say possibilities—of a system of health insurance developing in the United States fear that this same thing will occur.

It isn't so much the question brought out in Dr. Marshall's preliminary statement, it isn't so much the question before the Delegates here, are you or are you not going to have health insurance in Michigan or in the United States? The question before you is, under whose auspices will health insurance be presented and be controlled? Workmen's compensation is out of the control, with the exception of a very few states, of the profession. Is health insurance, which is not for you to say whether or not it is to develop today or tomorrow, *because health insurance is here, it is in Michigan now,* it isn't in Michigan under the auspices of the profession. Is health insurance to be controlled by the profession? The commercial agency is repeating the things that have already happened to the profession in workmen's compensation. It is going on all about you, it is going on all over the country; California is trying to fight it; the Washington State Society is shot to pieces with the efforts of the commercial agencies in health insurance.

Within the past week have come insurance companies to talk over what the State Society might do relative to health insurance, and those companies are fearful of what the Society might do toward self-control of a program of such insurance. So the question for you today is auspices, not the fact of health insurance itself, because you have that already, you have it already in Detroit, it is already in operation. The question is not, are going to have health insurance in Michigan; the question is, who is going to direct it. If you follow through the same technic in workmen's compensation in the United States, then you will have the same type of health insurance as you have workmen's compensation in many of the states in the Union.

The Chairman: Further discussion on the substitute motion.

Dr. Curtis: I appreciate Dr. Sinai's statement that we have health insurance. Dr. Sinai states that the commercial interests are now taking the hand in insurance. I would like to ask when he speaks of whose auspices it shall be handled under, what difference it makes under whose auspices it is if we still do as they do in compensation insurance today, particularly in Detroit—the man who does a certain amount of work for the least money gets the job. That is definitely so.

How long is it going to be, I ask, before the insurance companies do the same thing with health insurance and take it out of the hands of the medical profession?

Dr. L. G. Christian (Ingham County): I would like to express some of the background of this committee, at least my own background. You cannot help but come to one conclusion if you read the story of health insurance in other countries, that the medical profession in no country yet has been ready for health insurance; it has been choked down their throats.

This committee has attempted, or I believe it has attempted, to give you information so that we can be prepared.

I think that Dr. Curtis has missed the point of our recommendations upon which the health insurance should be adopted or should be accepted, that there will be no individual or no corporation that will come into this thing between the doctor and his patient for profit. In that we have backing in public opinion from the sociologists and economists of this country. The Committee on the Costs of Medical Care explicitly said that there shall be no third person entering into this scheme between the doctor and his patient for profit, and we have eliminated, by that, we believe, the insurance company that you are fearful of, Dr. Curtis.

Something is coming. Dr. Sinai has said that the commer-

cial agencies are out. An individual is in this town at this time and is on the verge of signing five of our physicians to a contract on which he is going out and organize his own company.

The history of California is that of the fly-by-night organizations, two or three individuals going about like they were selling machines or mops or soap, or what-not. They hit a town, make a big campaign, and sign up a great number of families, hire their doctors at a very attractive figure, and then fade out of the picture, and there is no way to stop them because they were not approved by the state insurance department.

If the medical profession, we believe, will try to become conversant with this idea and with this problem and will keep the control, then Michigan will be the first group of medical men in this entire world who have been ready for this thing and have not had it choked down their throats.

We are not advocating it, and I don't believe that we want to sell it, but we are laying down certain broad principles if the community, if industry, want it: Here it is, and this is how we will play ball with you.

Dr. Hirschman: Just one word on this substitute motion, and that is that I believe by deleting this first proposition we leave the matter entirely open. If we do as my friend Ecklund of Oakland has suggested, we go on record as disapproving the principle of health insurance, we close the doors to the consideration by our Committee on Economics of any phase of health insurance.

I am not so sure but that some of us are going to live long enough to see some type of health insurance in effect, and I don't know what the economic trend is going to be, but we as an organized body of medical men should be prepared with all the factual evidence that we can get through this Committee on Economics, to then say whether we shall or shall not approve of the principle, and not until then.

The Chairman: Is there any further discussion of the substitute motion? The question is called for. Will you repeat the motion?

Dr. Hirschman: On the bottom of page 171 of the report, that we delete the first sentence, which reads: "that the House of Delegates approve the principle of health insurance." Proposition 2 to read as follows: "That the Committee on Medical Economics be directed to study, prepare and present for the consideration of the House of Delegates a plan or plans for health insurance, provided, however, that such a plan or plans shall be based upon the following policies:

"(a) Free choice of physician by the insured;

"(b) The limitation of benefits to those of medical service;

"(c) The control of medical service benefits by the profession; and

"(d) The exclusion of individuals or organizations that might engage in health insurance for profit."

The question was called for.

The Chairman: All those in favor of the substitute motion say "aye," opposed. The substitute motion is carried unanimously.

Bottom of the first column of page 172, Care of Indigents. "The committee therefore recommends:" and the Secretary will kindly read it.

The Secretary: "1. That the committee and the medical profession undertake the medical care of the indigent as a joint responsibility.

"2. That the costs of medical care for the indigent be met through a contribution of funds by the community and a partial contribution of services by the medical profession.

"3. That the community funds be used to compensate in part the physicians for services rendered to indigents and that such compensation be in proportion to the amount of services provided.

"4. That the community centralize in one agency the social and economic appraisal of the individual's or family's right to such medical services.

"5. That the local committees on medical economics institute studies and develop plans in accordance with the above recommendations.

"6. That the state committee on medical economics analyze data pertaining to the costs of medical care for indigents and plans for providing service, and that these data be made available to local committees."

Dr. Carl F. Moll: I move that these recommendations be adopted.

The motion was seconded by Dr. William J. Stapleton, Jr., Wayne County.

The Chairman: Is there any discussion? Those in favor say "aye."

Dr. Carstens (Wayne County): For purposes of discussion, possibly some of the delegates might bring out something of interest to the committee in connection with paragraphs 2 and 3. I merely wish to draw this to your attention without arguing pro or con, and that is as to the cost of medical care and the method of contribution of funds by the community. That is a very broad question. Is it possible that this is a tendency toward state medicine which we have been deploring these many years? I am not sure.

Of course, there are degrees of indigency, from people who are always poor to workmen who are temporarily out of work. In those cases we are recommending that the cost of their care be provided by state funds. Is that essentially very much different from possibly some of the foreign insurance systems that are now in operation, except that in this case practically the whole cost will be met by the state, a small part by the physician to reduce fees for services, and none by the individual and none by the employer.

I wonder if this would merit further discussion as possibly, in case we adopt it, it would be interpreted as sponsoring the matter of health insurance which we are considering later.

Dr. Marshall: May I say, Dr. Carstens, that it really is state medicine, but the burden has become so great that the doctor cannot bear the whole load. In accordance with our ideas, the Genesee County Medical Society appointed an economics committee to make a plan, which went into operation in Genesee on the first of July, Dr. Minor and Dr. Reeder who did much splendid work on that committee having evolved a plan that we are going to try for six months, in which we have submitted a reduced fee bill for the care of the indigent, with absolutely free choice of physician, a good deal along the line of the participating plan of Detroit, of which we have heard so much. We employ a city physician who does not treat these patients at all, but investigates their illness and refers to them a list of general practitioners, surgeons, obstetricians, what-not, and they choose their doctor. We try to keep them still in contact with their family physician that they have had when they were more prosperous. We are watching this experiment with a great deal of interest in Genesee. In six months we ought to be able to give you some information on it.

It has always seemed to me that medical men in our college days have been sold on the idea of experiment; all our advances in physiology and in pathology have been done by experiment; I don't know why we should be so fearful or social experiments. We are not in Genesee County; we are trying a very definite radical social experiment, and we predict that we are going to save the county money on their care of the indigent.

The Chairman: Is there any further discussion? If not, we will proceed to vote on the motion to approve the recommendation of the committee on medical care of indigents. All those in favor say "aye," opposed. It is a vote.

At the bottom of page 172, Subvention of Medical Service. The committee recommends:

"1. That the House of Delegates approve the principle of subvention through state or local funds to assure reasonable, adequate medical care for residents in the sparsely settled areas and reasonable, adequate incomes and facilities for medical personnel.

"2. That the Committee on Medical Economics institute local detailed studies to determine the need for medical personnel and facilities in such areas."

Dr. Basil L. Connelly (Wayne County): I move the adoption of this recommendation.

The motion was seconded by Dr. Curry of Genesee County.

Dr. Ellet: Are there any delegates here from these sparsely settled counties?? Shouldn't they be allowed to have a chance to talk on this thing?

The Chairman: Anyone has a right to discuss it, is requested to discuss it.

Dr. Keyport (Grayling): I happen to be from one of these sparsely settled communities, and the first thing I want to say is that if there is to be a definite distinction made between minor indigents and adult indigents, we are able in our communities to get by very well with our adult indigents because in all of these counties we have found our boards of supervisors have discovered that they can keep these patients at home and have them treated more economically than they can by sending them away.

But the care of minor indigents comes up, and in those cases the state sends them away because they don't directly have to pay for their care.

The doctors in the northern half of the lower Peninsula are more concerned about this particular thing, about the minor indigents, than anything else, and I think at the meeting last September in Kalamazoo Dr. Greene of Shiawassee and Dr. Ecklund presented certain resolutions with reference to some legislative measures which should be adopted to take care of the minor indigents, and I would like to hear some discussion on whether or not anything has been done along those lines.

Dr. Ecklund: The cost of hospitalization is borne by the state and half the cost of transportation is borne by the state, but the other half of transportation costs and the

medical fees are paid by the county. Of course there is still the prerogative of sending them where they choose. They don't have to take care of them locally; they can send them to Ann Arbor if they want to.

Dr. Ellet: With reference to this first paragraph, if we endorse this principle of subvention, to my mind it seems it is nothing more nor less than endorsing the same thing that has been going on for years, of sending patients to a state owned hospital or state institution. It is not clearly defined.

Dr. Garber: I am a little hazy as to just where this thing is leading. At a time when sixty to seventy per cent of the taxes of the state are in arrears and have been for two or three years, what can we do and where will we get if we pile additional taxes on the state? What have they got to pay it with? Where are we going to yet our pay? I can't feel that we are in a position to ask the state to subsidize these counties. If I interpret this subvention correctly it means subsidy of these counties. I would like to get some more information on this if I can.

Dr. Moll: I think they are all off on the arguments they are making. I don't think they are to the point. As I understand this committee's report, it is to supply physicians in localities sparsely settled, localities where they need them, and where the money is coming to do this, what institution they are to be sent to, is without the question altogether.

I think from what I know about Michigan that there are very, very few localities that will require the help of a physician. With automobiles, with the roads as they now are, a physician can cover ten times, twenty times the territory that he could ten or fifteen years ago, and I think it is a very minor matter, and that we ought to recommend and adopt the committee's recommendation that this be done.

Dr. Hirschman: I have no intention of explaining "subvention," but I want to give you an illustration of how subvention works out. You all remember some graphic stories in the newspapers about the sorry plight of the poor fishermen up in Beaver Island, many of whom had contracted diphtheria and other various diseases, and they were a menace to health and there was no physician on Beaver Island, a community of some six or seven hundred souls, who during the winter were isolated by ice.

As a result, several physicians were requested to go over there and locate, and when they looked the ground over they all came back and said they couldn't possibly make a living.

It was necessary, in order to provide proper medical care for these poor Indians and half-breeds on the island, for the State of Michigan to put a full-time physician on that island to take care of those people who otherwise would have been without adequate medical care, particularly during the months when it was impossible to navigate the waters between Beaver Island the mainland.

That may be only one of a very few places in Michigan, but if there are any such places it would be very, very sad if the Michigan State Medical Society went on record as against providing adequate medical care and a decent living for a doctor to take care of such people.

Dr. Marshall: Gentlemen, this conclusion is based on the evidence in the chapter on the distribution of doctors and hospitals. We realize that there are not many such counties in the state, but there is evidence in that chapter that there are some counties without sufficient medical personnel and counties where the income is so low that a doctor could not possibly make a living, and a doctor will not go into a county, even if it has three or four thousand people, if he is going to starve.

The only conclusion that the committee could arrive at was this one. We feel that such a recommendation would only be carried out after a definite study of the needs. This is not going to be a wholesale affair. There might be only two or three such communities in the state.

Dr. Connelly: After listening to the discussion I wish to withdraw my motion.

The Chairman: It cannot be withdrawn without the consent of the second or the House. We will proceed to vote on the motion.

Dr. Stanley W. Insley (Wayne County): I formerly lived in one of these northern counties, and I would like to ask that these recommendations be stricken, that they be deleted.

The Chairman: The motion is out of order. The other motion is already made and seconded. He cannot withdraw it without the consent of the second or the House.

The second consented to the withdrawal of the motion.

The Chairman: The motion is recalled with the consent of the second.

Dr. D. P. Foster (Wayne County): I make a motion that we approve the recommendations of the committee.

Dr. Hirschman: I second the motion.

The Chairman: Dr. Foster makes a motion, supported by a second, which is identically the same motion, as I understand it. Discussion on Dr. Foster's motion.

Dr. Curtis: I think this thing can be clarified. It can be cleared up if when this subvention is paid up it he paid to the local practitioners and not to the University of Michigan or some other institution.

Dr. Insley: I can appreciate both the arguments pro and con on these particular recommendations. I give credit to the arguments in favor of it. On the other hand, I think there are distinct arguments against it. A number of these subjects are going to be studied further. There is a difference in drawing a conclusion from study of a record by men who have not lived in such areas and by men who have had experience there. I think the men who have grown up and practiced in these areas have a right to be heard on this subject. Why not let that go until there is further study on it by this new committee to be appointed?

Dr. Foster: If I understand correctly, we are in executive session and we are making recommendations to the committee that is going to make further study of these problems. All that we are trying to do is to get an opinion from this group in regard to whether or not this group as a committee of the whole approves the further study of these things. We are not adopting it as a body of delegates for the Michigan State Medical Society. Is that correct? If I am not correct please correct me.

Dr. Marshall: As we have it stated here very definitely, that is only after local detailed studies, and the principle of our whole organization is to have the local county committees on economics make those studies so that there will be none of this principle put into effect unless local organizations request it. That is the understanding I have.

The Chairman: The Chair will recognize Dr. Insley.

Dr. Insley: May I read this: "The committee recommends that the House of Delegates approve the principle of subvention to state or local bodies." That is the exact wording. We are apparently approving it today and making our study later.

Dr. Marshall: Finish it.

Dr. Insley: "Adequate medical care in sparsely settled areas," etc., etc.

We are first approving the principle of subvention and then going ahead and explaining it further. Why go ahead afterwards and say we will appoint a committee to study it? Strike out the principle of subvention, if you will, and then go ahead and study it.

Dr. Christian: This is not a new subject at all. It has been worked out in Saskatchewan for years successfully; it is worked in your own state at Detour, Michigan, where the board of supervisors will pay a doctor $2,000 a year to come and locate, and that is the only way they can get them there. It has been tried in Mackinaw County, and it is not new or revolutionary at all. Certain counties in this state have no physicians. Whether they need them or not we don't know, but the local detailed study will determine that.

It appears to me that we can do no less than to suggest that we approve or that we do approve this plan. I am afraid that if we strike it out we won't look so good to the public, and we are still the little narrow, grasping doctor who is looking out for his few cents.

The whole idea is this: that these people up there in some places need physicians, and if 3,000 of them are starving and a doctor comes along to locate there, there are just 3,001 starving in that community, and by local funds they probably can get a doctor in there.

Dr. Ellet: I don't believe that Dr. Insley disapproves of the idea of helping out these people in those counties. It is the principle of subvention. Why should we go on record as approving subvention?

Dr. Biddle: What is subvention?

Dr. Ellet: It was recently described a few minutes ago as nothing more nor less than state medicine. Where are you going to stop it? It may be all right to approve of it in isolated instances. There isn't a doctor in the State Medical Society who won't help out in a case of that kind, but why should we approve of this principle?

Dr. F. C. Mayne: I live in Sheboygan County. Subvention is used there; it is used on Mackinac Island. I am also acquainted with the conditions on Beaver Island. You can call it any term you wish, but the doctors there are purely hired and paid as health officers and are paid a fixed salary and are allowed to collect all that they can from private patients. Subvention, in my opinion, is an excellent thing in certain localities. I know there are other places in my county where a doctor is trying to exist and can't. If he were paid a fixed salary and then were permitted to collect and charge regular fees from those who could pay, they would receive adequate medical attention. As it is now they are not getting it. I am in favor of the recommendation.

Dr. Insley: I wonder if this argument could be largely gotten around by having the principle of subvention, if it is necessary, first approved by the local medical societies. I would like to offer that as a suggestion.

Dr. W. S. Reveno (Wayne County): I make an amendment to Dr. Foster's motion that the principle of subvention be approved wherever and whenever it is approved by the local county medical society.

The motion was seconded by Dr. Plaggemeyer.

Dr. J. D. Brook: I move that this matter be laid on the table for the consideration of the subcommittee and subsequent approval by the House.

The motion was seconded by Dr. Stapleton.

The Chairman: The motion is to lay the whole matter on the table. Those in favor of laying this whole matter on the table say "aye," opposed "no." The motion is lost.

Dr. Garber: Why can't we get along with this by saying that the House of Delegates approve reasonable and adequate medical care for residents in sparsely settled areas, etc., and just leave that subvention business out.

Dr. Christian: How are you going to furnish them the medical care?

The Chairman: The question is on the amendment by Dr. Reveno, which is to the effect that the principle of sub-

vention be approved when the demand meets the approval of the local county society. Those in favor of the amendment say "aye," those opposed say "no." The "ayes" seem to have it, the "ayes" have it and it is carried.

Dr. Hirschman: I call for a division.

The Chairman: Those in favor of voting in the affirmative manifest it by the usual sign when voting. Raise the right hand and keep it up. (Thirty-five affirmative votes.)

Those voting in the negative, the same sign. You are voting against the amendment. (Sixteen negative votes.) The amendment has carried.

You are now voting on the original motion, which is the approval of this as amended. Those in favor say "aye," opposed "no." The "ayes" have it and it is a vote.

At the bottom of page 171, first column, is the committee's recommendation concerning public health administration. The Chair recommends that we take each paragraph separately and vote our approval. The Secretary will kindly read the first paragraph.

The Secretary: "1. That the county be established as the basic unit of public health administration, including school health administration, and that the jurisdiction and activities of the county health department extend to all cities in the county. This recommendation is intended to place the health department in a position to correlate all health activities of a public nature in the county."

The Chairman: If there are no objections it is adopted as read. Hearing no objections, the Chair rules that that portion of the recommendation is adopted.

The Secretary: "2. That the present plan of permitting two or more counties to form district health departments with the approval of the State Health Commissioner be continued."

The Chairman: If there are no objections the Chair rules that that part of the recommendations be adopted. The Chair so rules.

The Secretary: "3. That the Committee on Medical Economics and the State Department of Health institute a study of counties to determine whether local needs would best be met by single county health departments or by consolidations of two or more counties for the support of a district health unit."

The Chairman: If there are no objections the Chair rules that that portion of the committee's report is adopted. The Chair so rules.

The Secretary: "4. That counties be assisted in the financing of health departments by state funds."

The Chairman: If there are no objections to that paragraph, the Chair rules that the society or delegates approve the adoption of it. Will someone move the adoption as a whole?

Dr. Foster: I move the adoption as a whole.

The motion was seconded by Dr. Karl B. Brucker, of Ingham County.

The Chairman: The motion is that the report of this committee with reference to public health organizations be adopted as a whole. Those in favor say "aye," those opposed say "no." It is carried.

The Chair would request at this time if anyone has any suggestions to make on this topic they will be taken up now.

Dr. Foster: I would like to suggest that the present Committee on Preventive Medicine present a plan for its participation in the state public health program at the next annual meeting of delegates in September. I so move.

Dr. Geib, I think, could elucidate a little bit more on this. He is most interested in it.

The motion was seconded by Dr. John L. Chester, of Wayne County.

The Chairman: This resolution reads "that the present Committee on Preventive Medicine present a plan for its participation in the state public health program at the next annual meeting in September." Discussion.

Dr. Geib (Wayne County): I think a good many of the answers to the preliminary discussion on health insurance and so forth can be answered by medical participation. I believe that the data that we have on hand and the experiments that are going on in various parts of the state, in Wayne County, under the direction of the Kellogg Fund, and various other counties of the state, in the Kellogg factory at Battle Creek where the medical participation plan is being carried out, in Genesee county where the participation plan is being started, will answer a great many questions against the adoption of health insurance. I would very much like to present a plan which would receive the consideration of the Michigan State Medical Society, and I think it will clarify a great many of the problems that we have discussed this morning.

The Chairman: If there is no further discussion we will proceed to a vote. Those in favor say "aye," those opposed say "no." The motion is carried.

The Chairman: Page 173. If the Secretary will read the first paragraph we will consider that.

The Secretary: "That the University adopt a policy which will lead to a restriction of the activities of the hospital to those efforts directed toward medical education."

The Chairman: If the Chair hears no objection to this part of the recommendation, University Hospital, he rules its adoption.

The Secretary: "2. That the Committee on Medical Economics of the Michigan State Medical Society request the appointment of a committee by the University and act with such a committee to prepare and plan to effect this policy as early as is compatible with public welfare."

The Chairman: Is there any discussion of that paragraph?

Dr. Rupp: At this point I wish to bring in an idea presented by one of the men from the sparsely settled district, who says all their minor indigents are being rushed to the University Hospital. How can we induce men to go into these sparsely settled districts if other agencies who are taking care of the medical service of Michigan, the Children's Fund of Michigan, the University Hospital, and so forth, are trying to get the work away from the men? I think here is the place where we can put in the idea that none of this work shall be taken from these local communities to the University Hospital, the Children's Fund, or anywhere else without the written consent and approval of the local profession in these respective communities.

The Chairman: Is there further discussion? Those in favor of approving the committee's recommendation, paragraph 2, make it manifest by saying "aye," opposed. It is a vote.

That completes the report, and I will recognize a motion that we rise from executive session and report to the House of Delegates.

Dr. Christian: I move that the committee rise from executive session and report to the House of Delegates.

The motion was seconded by Dr. Gorsline, put to vote, and carried.

The Chairman: The House will now rise from executive session and the Speaker will resume the Chair.

The executive session of the committee of the whole was adjourned, and the House of Delegates went into session, the Speaker, Dr. Pyle, presiding.

OPEN SESSION

The Speaker: The House of Delegates will please come to order.

Dr. H. A. Luce: Mr. Speaker, I move that the recommendations of the Committee of the Whole as embodied in the stenographic notes be approved by the House of Delegates and is so transmitted to the House of Delegates by this committee.

The motion was seconded by Dr. Chester, put to a vote, and carried.

The Secretary: Mr. Speaker, at the request of the Council and the Chairman of the Finance Committee I have been directed to present to the members of this House of Delegates certain facts pertaining to the Society's financial condition on July 1, of 1933. Our normal paid membership during the course of a year has been in the neighborhood of thirty-three to thirty-four hundred members. On July 1 of this year, 1,875 members have paid their dues in full; 1,510 members' dues remain unpaid at the present time.

The By-Laws provide that any member in arrears in his dues after April 1 shall be placed upon the susnended list and he shall not receive the JOURNAL and that he shall be denied medico-legal protection.

The Council, however, recognizing the financial situation in Michigan, and especially that of the doctors of medicine in Michigan, has made a special ruling that leniency be shown, but it is confronted with the other fact that funds are required to operate the activities of our Society, and that without funds many of our activities, like that of our Survey Committee and your newly created Committee on Economics, must terminate and rest very suddenly because of unavailable funds.

It is the urgent request of the Council and the Chairman of the Finance Committee that the Delegates return to their county societies and interview their executive committees of the county societies, as well as the presidents and secretaries, and make an earnest endeavor to secure from those who can pay, the payment of their dues in order that we may not be bankrupt.

The Secretary: For your Secretary's instruction he would like to have an expression of the House as regards the discussion that has taken place in this special session. We realize that you were in executive session, yet that which was said in this executive session is of intense educational value to every member of the Society and will enable him to understand this report more intelligently and convey to you as delegates his expressions and opinions and desires in order that you may record them at the next annual meeting.

Is it the wish of the House of Delegates that the transcript of the discussion of the committee of the whole be printed in the JOURNAL for the information of the members?

Dr. Leslie Henderson (Wayne County): I am wonder-

ing if that would not conflict with the program of Dr. Marshall and Dr. Sinai that they have outlined to be published in the newspapers.

The Secretary: That has all been published.

The Chairman: The Secretary wishes an expression whether you would endorse publishing your discussions of the committee of the whole in your medical Journal.

Dr. Rupp: I think that idea is very good and I so move.

The Speaker: If the Chair hears no objection we will authorize the Secretary to use his discretion in what he will print or not print in the Journal.

The Secretary: By your action you are meeting in Grand Rapids at 2 o'clock on Monday, September 11, 1933.

The Speaker: If there is nothing further to come before this House, we will stand adjourned.

Upon motion regularly made, seconded and carried, the meeting adjourned at 12:40 p. m.

F. C. Warnshuis, *Secretary.*

DELEGATES AT MEETING OF HOUSE OF DELEGATES

Lansing, July 12, 1933

Bay-Arenac-Iosco
L. F. Foster

Berrien
W. C. Ellet

Calhoun
C. S. Gorsline
A. T. Hafford

Cass
W. C. McCutcheon

Genesee
Geo. J. Curry
Frank E. Reeder
Carl F. Moll

Grand Traverse-Leelanau
E. B. Minor

Gratiot-Isabella-Clare
T. J. Carney

Ingham
Karl B. Brucker
L. G. Christian

Jackson
Philip Riley
James J. O'Meara

Kalamazoo
N. L. Goodrich
L. V. Rogers

Kent
Carl F. Snapp
Leon E. Sevey
A. V. Wenger
J. D. Brook
Geo. H. Southwick

Lapeer
Herbert M. Best

Livingston
Harry G. Huntington

Manistee
A. A. McKay

Mason
L. W. Switzer

Mecosta
Gordon H. Yeo

Monroe
Philip D. Amadon

Muskegon
F. W. Garber, Sr.

Northern Michigan
Frederick C. Mayne

Oakland
R. H. Baker
C. T. Ekelund

O. M. C. O. R. O.
Claude R. Keyport

Saginaw
G. Harry Ferguson
Rockwell M. Kempton

Shiawassee
I. W. Greene

St. Clair
Albert L. Callery

Washtenaw
Howard Cummings
John Sundwall

Wayne
Frank C. Witter
L. Mae James
E. D. Spalding
T. R. Rupp
S. P. L'Esperance
Louis J. Hirschman
Bert U. Estabrook
V. L. Van Duzen
Andrew P. Biddle
D. P. Foster
L. O. Geib
John L. Chester
S. G. Meyers
H. A. Luce
Leslie T. Henderson
David I. Sugar
H. W. Plaggemeyer
Stanley W. Insley
W. S. Reveno
J. D. Curtis
Wm. J. Stapleton, Jr.
B. L. Connelly

COUNTY SOCIETIES

NORTHERN MICHIGAN

Antrim, Charlevoix, Emmet, Cheboygan Counties

The July meeting of the Society was held at the Perry Hotel, Petoskey, July 13, 1933. There was an attendance of twenty members and one guest. The meeting was called to order by President Frank and then turned over to the vice president, Dr. Fraley McMillan. The secretary's report was read and approved. Correspondence was read.

Representative Douglas Tibbits of Charlevoix-Leelanau district gave a short talk on the osteopathic bill and the activities of the State Legislature.

Motion was made and seconded that a letter of congratulation be sent to each senator and representative from our districts that voted against the chiropractic and osteopathic bills. Motion carried.

Motion was made and seconded that all the representatives and senators be invited to meet with the Society before the next session of the legislature. The motion was carried.

The report of the Public Relations Committee was made by the chairman, Dr. Mast.

Motion was made and carried that Emmet County members of the Public Relations Committee be authorized to get the signatures of all doctors in and around Emmet County, heads of hospitals in Emmet County, to an agreement of the fee schedule as presented to Emmet County Supervisors and to report at the next meeting.

Report of Dr. Mayne on the delegates' meeting at Lansing was heard. Dr. Wood was appointed to the Program Committee.

E. J. Brenner, *Secretary.*

SHIAWASSEE COUNTY

An honored member of this society, Dr. J. S. Shoemaker, died suddenly in Kentucky, where he had gone to be present at the wedding of his son, on Tuesday, June 20. In the June number of the Journal is recorded the account of the celebration of the fiftieth anniversary of his graduation, with his classmate, Dr. W. E. Ward, of Owosso.

Dr. Shoemaker's funeral occurred Sunday, June 25, at his residence in New Lothrop, and was attended by nearly all the physicians of Shiawassee County, as well as the entire population of his village.

As the poet Will Carleton says:

"But perhaps it still is better that this busy life is done:
He has seen old views and patients disappearing one by one;
He has learned that death is master both of Science and of Art;
He has done his duty fairly, and has acted out his part."

W. E. Ward, *Secretary.*

GRATIOT-ISABELLA-CLARE COUNTY

The June meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, June 29. At seven o'clock six members and one visitor had dinner together.

President Carney called the meeting to order. The minutes of the previous meeting were read and approved.

President Carney then introduced Carl Badgley of Ann Arbor. The doctor chose for his subject, "Fractures of the Ankle," first describing a new classification for these fractures, then illustrating each type of fracture by x-ray pictures. Following this Doctor Badgley took up the treatment of each type separately. Several members then asked the doctor questions, which he very kindly answered.

Motion was then made and carried that the doctor be given a rising vote of thanks for his splendid presentation of this subject.

Meeting adjourned until September.

E. M. Highfield, M.D., *Secretary.*

OBITUARY

DR. ERNEST MORRISON CURRIE

Dr. Ernest Morrison Currie of Detroit died suddenly at his home on May 16, 1933, from a heart attack. Dr. Currie was born at Port Elgin, Ontario, in 1876. He moved to Detroit with his parents at the age of ten years. He obtained his medical education in Detroit and studied medicine and graduated from the Michigan College of Medicine in 1902. Following graduation he practised in Carlton, Michigan, about two and one-half years, then came to Detroit, where he had practised from 1905 to the time of his death. Dr. Currie was stationed during the war at Debarkation Hospital No. 52, Newport News. He was a member of the Findlater Lodge No. 475 and also a member of the Wayne County and Michigan State Medical Societies and American Medical Association. He was also a member of St. Andrew's Society. He is survived by his wife, Myrtle, and two daughters, Viola E. and Gwendolyn.

DR. J. HAMILTON CHARTERS

Dr. J. Hamilton Charters, whose death was announced on the day of going to press with the July number of this Journal, was one of the most highly respected physicians of this state. Graduating from the Saginaw Valley Medical College and Northwestern University he began the practice of medicine at Gaylord, Michigan, in 1903. He also practised in Mackinac and Houghton, Michigan, before locating in Detroit. During his sojourn at Mackinac Island Dr. Charters had many interesting contacts with the great and near great, many from official Washington who spent their summers in the northern Island. Dr. Charters had a cheerful disposition, preserving his optimism even when failing eyesight from cataracts had compelled him to all but abandon his profession. His interests were broad, he loved mankind and gave of his best whenever called upon whether in the practice of his profession or in the county or state medical society of which he had been an ardent member throughout his professional life. Dr. Charters was a member of Palestine Lodge 357 F. and A. M. He is survived by his wife, Ethel L.; his mother, Mrs. James B. Charters; two brothers, Herbert J. of Toledo, Ohio, and Albert G. of Detroit; and three sisters, Mrs. F. C. Ohland of Battle Creek, Michigan, Mrs. William H. Pierce of Jackson, Michigan, and Miss Eva Charters of Bay City.

DR. R. I. BUSARD

Dr. R. I. Busard of Muskegon was killed on June 21 when an aeroplane which he was piloting suddenly went into a nose dive. On striking the ground the plane caught fire, and the doctor, together with a fellow passenger, was burned to death. Dr. Busard was born at Palestine, Illinois, forty-six years ago. He attended and was graduated from the Northwestern University School of Medicine in 1906. He was intern at the Hackley Hospital in 1907 and had practised in Muskegon to the time of his death. Dr. Busard was active in the industrial and commercial life of Muskegon as well as in professional affairs. He was at one time president of the Muskegon County Medical Society and at the time of his death he was chief of the division of surgery of the Hackley Hospital. He is survived by his wife and three sons.

GENERAL NEWS AND ANNOUNCEMENTS

The Upper Peninsula Medical Society will hold the annual meeting at Escanaba, August 10 and 11.

Dr. William German, Grand Rapids, will return, August 27, after a ten weeks' course that he pursued in pathology in Germany.

The annual meeting of the Wabash Surgical So-

ciety will be held at the Hotel Fort Shelby, Detroit, on September 11 and 12.

Copies of the report on the Survey of State Medical Services and Health Agencies may be secured by remitting $2.50 to the State Secretary.

Dr. Thomas J. Carney of Alma is desirous of securing the assistance of a recent graduate. Interested doctors should write Dr. Carney direct.

The annual meeting of the Michigan State Medical Society will be held September 11, 12 and 13. See this number of the JOURNAL for preliminary program.

The Aero-Medical Association of the United States will hold its annual meeting in the Palmer House, Chicago, September 2, 3 and 4, 1933. The retiring president of the association, Dr. F. C. Warnshuis, will preside.

Mr. Jones E. Cook, Owosso, Michigan, died on July 24. Mr. Cook was the father of Henry Cook of Flint, councilor for the sixth district of Michigan. The sympathy of the profession is extended to Dr. Cook in his bereavement.

Two prominent Japanese physicians were visitors at the Wayne County Medical Society on July 17. They were Kikuo Sakai, M.D., Dr.P.H., Chief Medical Director, Health Department, Tokyo, and S. Harashima, M.D., Fellow of the Rockefeller Foundation.

The Board of Trustees of the Wayne County Medical Society have passed a resolution in regard to the services rendered the profession of the state of which Wayne County is a considerable portion. The resolution reads as follows: "Be it resolved that this Board express to the president of the Michigan State Medical Society, Dr. J. M. Robb, the Legislative Committee, Doctors Carr, Penberthy, McCutcheon, Hyland and Moll, and the other members of the profession who have labored so faithfully in behalf of higher medical standards during the past year, our highest commendations and appreciation of their efforts."

Dr. W. S. Reveno, for five years editor of the *Wayne County Medical Society Bulletin*, has resigned to be succeeded by Dr. David I. Sugar, of Detroit. Dr. Reveno has proven himself a very able editor; perhaps no other member of the Wayne County Medical Society has a more intelligent knowledge of the Society's affairs than Dr. Reveno. His work on the *Bulletin* during his incumbency has been characterized by the highest sanity and judgment. Retiring from the editorship of the *Bulletin*, however, will not deprive the Society of Dr. Reveno's ability, made more valuable through his years of experience. We bespeak for his successor the same loyalty and appreciation that have been accorded Dr. Reveno by the Society membership. Dr. Sugar is a young man of good ability and promise. May he occupy his new position for a term of years, for only under such a situation may he be able to give of his best to the Society.

THE DOCTORS' LIBRARY

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits.

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 16, No. 6. (Mayo Clinic Number, May, 1933.) INDEX NUMBER. Octavo of 239 pages with 28 illustrations. Per Clinic year, July, 1932, to May, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

SURGICAL ANATOMY. By C. Latimer Callander, A.B., M.D., F.A.C.S., Assistant Clinical Professor of Surgery and Topographic Anatomy, University of California Medical School; Associate Visiting Surgeon to the San Francisco Hospital. With a Foreword by Dean Lewis, M.D., Sc.D., LL.D., F.A.C.S. 1,115 pages with 1,280 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1933. Cloth $12.50 net.

This work on Surgical Anatomy will be of interest to students and to practising surgeons alike. It is a clearly written book characterized by rather concise but very lucid regional descriptions. The anatomical terminology is anglicised and older synonyms are given along with more recent names. Adequate treatment is given the various regions and this is particularly true of those less easily understood. Fascias are more fully handled than in several other texts though surface markings and external localizations of organs are less extensively treated. A prominent feature is the stress given the practical and surgical aspect of anatomy. Following each region treated the surgical conditions are emphasized. The illustrations, which average better than one to a page, are particularly well selected and about half of them are new. In these, normal structure, the common pathological variations, the cause of drainage of abscesses, relations of organs and the principal operative procedures are outlined. Forty-five pages of index aid in rendering any detail accessible in a moment.

ELECTROSURGERY. By Howard A. Kelly, M.D., LL.D., F.A.C.S., Baltimore, Maryland, and Grant E. Ward, M.D., F.A.C.S., Baltimore, Maryland. 305 pages; 382 illustrations. W. B. Saunders Company, Philadelphia, 1932. Price $7.00.

The name of Howard Kelly commands respectful attention throughout the entire medical world. It is exceedingly fortunate that this newly developing Electrosurgery should have been so adequately investigated by an operative Nestor whose endorsement thereof is conclusively based upon exact laboratory findings, and the diversified surgical experience of himself and several well known coadjutors.

Commencing with the History and Physics of High Frequency Currents, Clinical and Laboratory Observations on Histological Changes, General Principles of Electrosurgery, every indication for and application of the cutting, the desiccating, and the coagulating electrical currents in otolaryngology, gynecology, urology, proctology, and general surgery, is explained with all those clarifying details which only a master surgeon and teacher can so thoroughly and vividly portray. While the keenly incisive, hemostatic, aseptic, and coagulating properties of the indicated high frequency current have been found preeminently requisite in both radical and in palliative surgery of malignancy, these special electrical characteristics will also prove more or less desirable in every branch of surgery.

The numerous beautifully clear illustrations con

stitute an atlas which graphically depicts the successive operative procedures and results.

As the one and only available textbook on Electrosurgery, written by the one and only Howard Kelly, it is all but obligatory on the progressive surgeon to possess a copy and qualifyingly acquaint himself with its revolutionizing, yet scientifically approved, methods of operative technic.

J. E. G. W.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION: Volume XXIV, 1932. Edited by Mrs. Maud H. Mellish-Wilson and Richard M. Hewitt, B.A., M.A., M.D. Octavo of 1,205 pages with 233 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth $11.50 net.

It has been our pleasure from year to year to announce the annual volume of Collected Papers of the Mayo Clinic. The twenty-fourth volume, which contains the papers for 1932, is a varied storehouse of medical interest in par with its predecessors, which we have reviewed at length. The manner in which the contents of the volume are classified and indexed makes it an ideal book for ready reference for both surgeon and internist.

OBSTETRICS AND GYNECOLOGY: By 80 Leading Specialists. Edited by Arthur Hale Curtis, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago, Ill. Complete in 3 Volumes and Separate Desk Index. 3,500 pages with 1,665 illustrations, many in colors. Philadelphia and London: W. B. Saunders Company, 1933. Per set, Cloth $35.00 net.

This work will be welcomed by the general practitioner as well as the specialist in obstetrics and gynecology. Volume I deals with anatomy and physiology the embryo and fetus, diagnosis and management of normal pregnancy, labor, the newborn and pathology of pregnancy. One chapter, that on Disturbances Due to Diseases and Abnormalities of the Female Genitalia, is by one of the members of the Michigan State Medical Society, Dr. Alexander MacKenzie Campbell of Grand Rapids. In this chapter the author discusses Malpositions, Congenital Anomalies, Newgrowths and Pelvic Infections. It is written with the same scholarly thoroughness and detail that has characterized Dr. Campbell's papers which have appeared in this JOURNAL. Another chapter which should be of pronounced general interest is that by Dr. Irving S. Cutter, entitled, "Historical." It is 190 pages in length, profusely illustrated, and is about as complete a monograph on the history of obstetrics as has appeared in English. There is much to commend and little to criticize adversely in this masterful and composite work.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A.M., M.D., Professor of Obstetrics and Gynecology at the University of Chicago; Chief of Obstetrics, Chicago Lying-In Hospital and Dispensary; Consulting Obstetrician to Provident Hospital, to the Chicago Maternity Center, etc. Sixth Edition, thoroughly revised. 1,165 pages with 1,221 illustrations on 923 figures, 265 of them in colors. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $12.00 net.

This sixth edition of the author's work naturally contains much that former editions contained but bears the evidence of careful revising. In this volume one finds a careful digest of the subject under discussion from all the outstanding teachers of obstetrics. The introduction consists of several pages of endeavors to impress upon the reader that in general the practice of obstetrics in the United States is on a low plane. He claims that labor in the woman of today is a pathologic process as a result of which 25,000 women die annually; not until we invest obstetrics with the dignity it deserves in the curriculum of our medical schools and maternity hospitals can this frightful loss of life be checked.

The illustrations are numerous. The chapter on cesarean section, as one might expect, is written with meticulous care, especially that portion which deals with the low operation. Throughout the whole text one senses the master mind, and while the author freely gives credit to those who differ from him, he remains firm in his conclusions.

MEDICINE AT THE CROSSROADS

Harvey Cushing says: "A recent leader of public opinion openly states that most of those at present dealing with the sick—meaning more specifically the doctor—have their faces turned toward the past. If history but repeats itself, where else but from the past *can* we learn anything? We certainly can draw little comfort and few admirable lessons from the late present. . . . Lay reformers speak lightly of his code of ethics as something long since outworn, but so far it has prevented him, for one thing, from capitalizing for his own benefit his inventions and therapeutic discoveries. . . . By the combined efforts of both groups, doctor and sanitary official, the expectancy of life has been greatly prolonged—and will be more so before we are through. Yet while we point to this triumph, there are just so many more people who live longer only to be overtaken, the health official with the rest, by unforeseen and unpreventable accidents for which they seek the best surgeon they can find, or by some malady for which they demand the very best physician—like enough a highly trained specialist. . . . Legislation and attempted coercion do not always accomplish what reformers anticipate. . . . There has been much idle talk, too, regarding scientific medicine and the modern scientific doctor who with his ingenious appliances and mathematical exactitude has come to supplant the old-fashioned 'practical' doctor. . . . As a matter of fact, it will be a great shock to laymen to learn that a great part of what is called scientific medicine is a fetish and wholly unscientific. . . . The practice of medicine is an art and can never approach being a science even though it may adopt and use for its purposes certain instruments originally designed in the process of scientific research. . . . The explanation of the doctor's seeming want of business acumen lies partly in the restraining influence of his time-honored precepts of conduct, partly in his preference to hold the respect of his own kind rather than of the financial world, and partly because inherently he's that kind of person else he wouldn't have gone into medicine in the first place. . . . A form of legal racket which thrives on the insurance system at the expense of the profession is the rapidly spreading prevalence of malpractice suits, particularly against surgeons, for imaginary grievances sustained, more often than not, as the outcome of some operation done purely for charity. . . . Whether we have temporarily overstressed science and research in medical education and let it come to enslave us is not for any one to say. If it has, the day will arrive when of itself the pendulum will swing and there will be a corrective reaction, for there usually is to whatever we overdo. . . . There are two sides to every question, and inability to see both constitutes the fundamental weakness of all theories and particularly those relating to the biologic and social sciences. . . . But however this may be, those who deal with the science of society deal with something that actually *does* pulsate with so short a time cycle that conditions almost from year to year are never quite the same, so that our theories of today are likely to need modifying tomorrow."—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII SEPTEMBER, 1933 No. 9

CONTENTS

Heart Disease and Pregnancy. Ben I. Johnstone, M.D. ... 479

A Review of the Dietary Treatment of Psoriasis. R. C. Jamieson, M.D. ... 486

Six Centuries of Medical Progress in Sweden. B. Hjalmar Larsson, M.D. ... 490

Recent Conceptions of Obesity. A. A. Wittenberg, M.D., C.M. ... 500

Hemangio-Myofibroma of the Uterus. Joseph Johns, M.D. ... 504

A Selective Type of Thoracoplastic Operation. William A. Hudson, M.D. ... 506

Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. ... 508

Editorial:

Business in the Practice of Medicine ... 510

Making the Motorist Responsible ... 510

Birth Certificate ... 511

Swedish Medical History ... 511

The Expert Witness ... 511

Official Program, 113th Annual Meeting Michigan State Medical Society, September 11, 12, 13 and 14, 1933 ... 513

Society Activity ... 526

County Societies ... 529

Woman's Auxiliary ... 530

General News and Announcements ... 530

Obituary ... 530

HEART DISEASE AND PREGNANCY*

BEN. I. JOHNSTONE, M.D.†

DETROIT, MICHIGAN

Heart disease complicated by pregnancy is a problem that vitally concerns the obstetrician and the cardiologist. The decision as to what should be done regarding pregnancy in a given woman with serious heart disease requires a considerable nicety of judgment. It is true that the individual physician does not see many such patients and it is because of this rarity that opinions, in the past, have varied as to the proper method of handling such cases.

Within the past ten years closer coöperation between the obstetrician and the cardiologist, and the study of statistics, particularly in the larger clinics, have established certain definite principles to guide us. A wide diversity of opinion still exists regarding many of the more detailed features.

It has been estimated that in the average hospital about 7.5 per cent of the pregnant women show something in their history or physical examination to suggest heart disease. Of these, about one in seven or 1 per cent of all pregnant patients, have seriously damaged hearts. On the other hand when we realize that only a few years ago in the larger Boston hospitals 15 to 25 per cent of the total maternal mortality was due to heart disease, we appreciate the importance of this complication. In these same institutions today this percentage has been reduced to about ten.

We must realize that our present statistics

Read before a meeting of the staff of Woman's Hospital, Detroit, Michigan, February, 1932.

†Dr. Johnstone graduated from the University of Toronto in 1924. He spent one year in Pathology at Toronto under Professor O. Klotz, being granted degree B.Sc. (Medicine). He then spent six years in Internal Medicine at the Henry Ford Hospital, three and one-half of which were in the cardio-respiratory division.

are not entirely accurate in that our figures are largely concerned with the patient up until the time she leaves the hospital. We have little information as to how long her compensation is maintained afterwards.

The problem is usually presented in one of three ways:

1. Shall the woman with heart disease marry?
2. Shall the married woman with heart disease become pregnant?
3. Shall the married woman with heart disease continue her pregnancy, and if not, when should it be terminated?

As a rule the same considerations apply as to whether the patient should marry, as when married whether she should become pregnant. Improved antenatal care has done much to pick out the serious cases and institute rational treatment early. In spite of this it is the third question that we are called upon to answer to often. Some women are advised against marriage and pregnancy, and disregard the advice. Many are not seen until pregnancy is well advanced and congestive heart failure is present.

In a study of this problem, one requisite is an understanding of the changes that take place in the cardiovascular system during a normal pregnancy. It has been shown that the blood flow per minute is increased 30 to 50 per cent in the later months of pregnancy. This is attributed to the new demands made on the circulation by the increased body weight, the enlarged placenta, and the increase in the size of the breasts.

As the tumor increases in size it tends to obstruct the free movement of the diaphragm, displace the heart, change the shape of the chest, and compress the bases of the lungs.

There is considerable difference of opinion as to whether the heart enlarges during normal pregnancy. Sir James McKenzie felt that it did not. Because of the change in position and contour of the organ during pregnancy it is difficult to arrive at a final answer to this question.

Shortness of breath, palpitation, tachycardia, and edema of the feet are not unusual, specially in the later months of normal pregnancy. These symptoms are definite evidence of an additional burden on the circulation. Systolic murmurs, especially over the mitral and pulmonic areas, are not uncommon. These disappear, as a rule, during the first four weeks following delivery, and should not be confused with organic murmurs. Symptoms vary with the usual response of a particular individual to physical exertion. If these facts are kept in mind, confusion should not occur regarding the normal heart during pregnancy.

Patients showing abnormal cardiac signs and symptoms may, for the purpose of discussion, be divided into three groups:

1. Neurocirculatory asthenia.
2. Doubtful heart disease.
3. Significant heart disease.

The first group consists of those individuals complaining of breathlessness, syncope, tachycardia, precordial pain, and weakness. They are nervous and often constitutionally inferior individuals in whom no organic heart disease can be found after careful examination, including x-ray and the electrocardiogram. This condition has been termed neurocirculatory asthenia, irritable heart, soldier's heart, or effort syndrome. These patients do not need specific cardiac treatment, but need reassurance, careful management, and psychotherapy.

The second group contains those patients with slight or questionable cardiac enlargement; loud systolic murmurs, commonly in the mitral area; or an irregular rhythm that proves to be sinus arrythmia or extrasystoles. They are without symptoms as a rule, and have a good response to effort. After a thorough study we do not feel justified in classifying them as having definite organic heart disease. These patients do well during pregnancy and can be disregarded as far as special treatment for the heart is concerned.

In the third group I have included all patients with organic heart disease, and have subdivided them as follows:

1. Rheumatic heart disease.
   (a) Recent or active rheumatic fever.
   (b) Valvular lesion, sinus rhythm, with normal sized heart.
   (c) Valvular lesion, heart enlarged or greatly enlarged, rhythm regular or irregular.
2. Luetic heart disease.
3. Congenital heart disease.
4. Paroxysmal tachycardia.
5. Subacute bacterial endocarditis.
6. Thyroid heart disease.
7. Acute carditis.

8. Degenerative heart disease.
9. Angina pectoris.

Ninety per cent of the pregnant women with significant cardiac pathology have rheumatic heart disease, and the majority of these have mitral stenosis. Some have a combined mitral and aortic lesion, and a few have an aortic lesion alone. Most of our discussion will refer to this group of cases. Brief specific mention will be made of the various other types of heart disease that may occasionally complicate pregnancy.

Acute rheumatic fever contraindicates marriage and pregnancy for one year after the attack. If it occurs in the early months of pregnancy, and the heart is seriously involved abortion is justified; if in the later months, the patient may be carried along with bed rest and salicylates until a viable child is obtained.

Until twenty years ago, and even yet in some text books, the opinion is expressed dogmatically that patients with mitral stenosis should not marry; if they are married should not become pregnant; and if pregnant should have a therapeutic abortion and sterilization performed. This opinion is not generally accepted today, and I am sure that all of us have seen patients with mitral stenosis go through one or more pregnancies without complications or aggravation of the heart condition which was demonstrable.

Due to the natural evolution of the disease, the life of the young woman with rheumatic heart disease is materially shortened. The average length of life for patients with mitral stenosis is about forty years. The degree of the stenosis, learned by a careful examination of the mitral murmurs; the resulting enlargement; and the degree of associated myocarditis will alter the prognosis as regards life, as well as our opinion as to whether pregnancy should take place or continue. The nervous make-up of the patient is important. The calm, lethargic type does better and is apt to bear marriage and pregnancy better than the hyperkinetic woman. The economic status of the patient may be the deciding factor in allowing pregnancy. If the prospective mother can have someone to assist her constantly during pregnancy and the postpartum period, the chances of difficulties arising, related to her heart, are greatly lessened.

Some writers consider aortic insufficiency more serious than mitral stenosis. It is much less common. If it complicates a mitral stenosis, of course it adds to the gravity of the lesion. Sir James McKenzie felt that pregnancy could be allowed with safety in patients with aortic insufficiency, in the absence of a Corrigan pulse and marked cardiac enlargement.

The consensus of opinion today may be summarized by stating that in all cases of rheumatic heart disease the patient may be allowed to marry and become pregnant if the heart is not enlarged, the response to effort is satisfactory, there is and has been no congestive failure, and the rhythm is regular. On the other hand, if there is a clear history of congestive failure, auricular fibrillation or flutter, if the mitral stenosis is advanced and accompanied by a large heart, or if there is aortic insufficiency with a Corrigan pulse and hypertrophy, a definite veto must be given.

It is the borderline cases that give the most difficulty in arriving at a decision. Thus, a woman may have a fairly tight stenosis, some cardiac enlargement, and moderate limitation in her response to effort. She and her husband may be very eager to have a child. In such cases, the functional rather than the anatomic condition is our best guide. Often the deciding factors are apart from the heart itself. The lives of some of these women could be unbearable without children, and in such cases the patient is entitled to know to what extent the usual dangers of pregnancy are increased by her cardiac lesion. She, or a reliable relative, should be advised that if pregnancy is allowed she takes a 5 per cent risk during pregnancy and the puerperium, and a 10 per cent risk of having a dead baby. To keep the above risks at a minimum she should be prepared to carry out the physician's orders explicitly and be ready at any time to enter a hospital and agree to interruption of pregnancy if necessary.

If the patient is seen during the first three months of pregnancy, a decision as to whether the pregnancy should be allowed to proceed may be based on the same factors that have decided us in regard to permitting pregnancy. Thus, if the heart is not enlarged, the response to effort satisfactory, the rhythm regular, and there has been no congestive failure, the pregnancy may continue. Chronic passive congestion, auricular fibrillation, and a very large heart with

limited cardiac reserve, indicate therapeutic abortion and sterilization. In the borderline cases, if the patient's heart is the primary consideration, we are well advised to produce an abortion. If however, the woman is prepared to face the ordeal we must do all we can, and we can do a great deal, to minimize the dangers of pregnancy and parturition by constant supervision, and prompt and effective treatment, both medical and surgical.

When the pregnant woman is not seen until after the fourth month, suitable treatment is outlined in an effort to obtain a viable child. This is necessary, not only from the standpoint of obtaining a living baby, but because induced labor at this time is considered just as dangerous, as far as the heart is concerned, as if the patient were given suitable treatment and allowed to continue to or near term.

Once the pregnancy has been allowed to proceed, each one of these patients should be under close supervision. They are all candidates for auricular fibrillation or subacute bacterial endocarditis, and such complications may bring on congestive heart failure.

Such early signs of insufficiency as râles at the lung bases, rapid respirations, duskiness of the face, increased pulse rate, and hemoptysis should be watched for carefully and receive immediate treatment if they appear. Embolism may occur but is not more common in pregnancy than in the non-pregnant patient with rheumatic heart disease.

Conditions other than rheumatic heart disease constitute about 10 per cent of the cardiac pathology in pregnant patients. A variety of etiological factors make up this small group and hence any one factor is not commonly active. It is well known that patients with leutic heart disease, especially those with aortic insufficiency, do not do well. After congestive heart failure has developed the average length of life is about two years. The condition is not always incompatible with childbearing, however, and some of these women produce living children. Marriage and pregnancy should be vetoed, but if the patient who is pregnant has a good response to effort and there has been no congestive failure, the pregnancy may be carried along under close supervision and a living child obtained in a few cases. In the interests of both mother and child antiluetic therapy should be carried out, observing the same caution as in all cases of cardiovascular lues.

Congenital heart disease is relatively rare in pregnancy. Sir James McKenzie felt that those patients who reach the age of twenty-one without undue symptoms, in whom cyanosis and clubbing are absent, and who show little cardiac enlargement might be allowed to continue pregnancy without great risk.

We occasionally see patients with short periods of paroxysmal tachycardia occurring infrequently. Marriage and pregnancy need not be prohibited in these cases. If the attacks are frequent and of long duration, pregnancy should be delayed or postponed indefinitely. Therapeutic abortion may be indicated in the early months of pregnancy in such patients, and if the child is viable the delivery should be postponed until the paroxysm is under control. If the attacks are ventricular in origin, the condition is more serious and usually contraindicates both marriage and pregnancy.

Subacute bacterial endocarditis is more commonly seen during the later months of pregnancy, at delivery, or during the puerperium. All patients with chronic valvular disease, especially of rheumatic or congenital origin, are prone to develop this condition. This tendency seems to be increased by pregnancy. Hay, in England in reporting his cardiac mortality during pregnancy, attributed 28 per cent to this complication. The prognosis in a true case of subacute bacterial endocarditis is almost without exception fatal. The condition prohibits marriage and pregnancy and indicates abortion in the early months. If the patient is not seen until after the fourth month, and the endocarditis is fairly well advanced, it is likely that miscarriage will occur. In a few such cases a living child may be obtained. At delivery, or in the puerperium it is not always easy to establish the diagnosis of subacute bacterial endocarditis. These patients will have the usual heart murmurs associated with chronic valvular disease, fever may be present, and streptococcus viridans is not uncommonly obtained from the blood stream. Continued observation is necessary in such cases and it is a mistake to suggest the hopeless prognosis usually associated with subacute bacterial endocarditis until the diagnosis has been further substantiated by the appearance of emboli, enlarged spleen, and other manifestations of the disease.

The question of thyroid disturbance in pregnancy presents an entire topic in itself. Every obstetrician is aware of the deleterious effect of hypothyroidism on both the mother and the child. The generally lowered metabolism at times seriously handicaps the heart. Fortunately, in such cases the judicious use of thyroid extract will control the condition and restore the cardiac reserve. Hyperthyroidism is not uncommon in pregnancy. Many mild cases probably go to delivery with return to normal post partum without a diagnosis having been made. In the more severe case the hyperthyroidism should be treated as in the non-pregnant woman.

Outside of the rheumatic and luetic groups, acute myocarditis is rarely seen, even when not associated with pregnancy. Occasional cases do occur, however. In such cases the electrocardiogram is of considerable aid in diagnosis. Pregnancy is contraindicated in these individuals until one year at least after the acute condition subsides.

Degenerative heart disease is uncommon in women of child-bearing age, and when present is commonly associated with arterial hypertension and nephritis. The latter conditions of themselves contraindicate pregnancy and such women should not be allowed to become pregnant, especially in the presence of complicating heart disease. Therapeutic abortion should be done early in such cases.

Angina pectoris is occasionally associated with luetic and rheumatic heart disease, and if present adds to the seriousness of the lesion. It may occur with or without the hypertensive cardiovascular syndrome. If the attacks are frequent or severe, pregnancy is contraindicated.

TREATMENT

The question of treatment is in part at least inseparable from consideration of the problem as a whole. Certain features regarding the management of these patients will be discussed in detail.

When we have decided that a patient has significant heart disease, but have allowed marriage and pregnancy, close supervision of the cardiac status is indicated. The amount of physical exercise allowed will depend on the severity of the heart condition. In the absence of congestive failure these patients need exercise, and walking is the best form if kept within the limits of fatigue. Light housework is permitted, but climbing stairs, shopping, and heavy work should be avoided. Help in the home is essential, especially for the more severe cases. These women should have ten hours rest each night, should eat small meals, and rest at least one-half hour after each meal. Precaution should be taken to avoid infection, and even with the common head cold bed rest should be carried out until recovery is complete. Those patients with less severe heart disease should be seen every two weeks and the more severe cases every week to watch for complications and evidence of cardiac insufficiency.

If congestive failure develops in the first three months of pregnancy, the patient should be put on bed rest with fluids and salts restricted, and digitalis given to its full therapeutic effect. When the insufficiency has cleared up therapeutic abortion should be done. If the patient will agree, sterilization should be done at the same time. The particular method of doing this will vary in different individuals and with the skill of the operator. In multipara, frequently the uterus can be emptied and the tubes tied per vagina. In primipara, miniature cesarean section and sterilization by the abdominal route is often the method of choice. Morphine and light ether anesthesia have proven entirely satisfactory in such cases, although more recently low spinal anesthesia is becoming more popular.

If the patient reaches the fourth month satisfactorily every effort is made to continue the pregnancy until the child is viable. If treatment is carried out faithfully most of the less severe cases will go to term and be delivered without difficulty, perhaps with the aid of forceps during the second stage. The manner of delivery in those patients with more serious heart disease has led to much discussion and is as yet a controversial subject. Each case is a problem in itself. Premature labor occasionally occurs while the case is under consideration and so settles the argument. It is generally agreed that there is little advantage in inducing labor before the thirty-sixth week. A few writers consider induction of labor more serious than delivery at term. However, in the majority of instances termination of the pregnancy two to three weeks before the estimated date of confinement is advisable.

There is no unanimity of opinion as to the ideal way of emptying the uterus. It is generally agreed that cesarean section produces less strain on the heart than delivery per vagina, and also furnishes an opportunity for sterilization. On the other hand, there is the additional risk of respiratory and other post-operative complications. The skill of the operator and the facilities at hand are important factors in deciding the individual problem. In the average clinic the majority of multipara and a few of the primipara are delivered per vagina. Cesarean section is used for patients in whom treatment will not clear up the congestive failure, for obstetrical reasons, and in a rather large percentage of primipara when sterilization is agreed upon.

If suitable coöperation is obtained from the patient and proper observation given by the physician, a patient need rarely be delivered while in congestive failure. Pardee goes so far as to say that delivery in failure is an evidence that someone has blundered.

Unfortunately the education of the public has not reached the stage in which all women apply for prenatal care, and a number of women do not consult a physician until late in pregnancy when congestive failure has developed. A few also, even under satisfactory coöperation and observation, develop intractable failure, due to the development of fibrillation, embolism or bacterial endocarditis.

In all cases it is extremely dangerous to deliver a patient during heart failure in any stage of pregnancy, particularly in the later months. The heart failure needs treatment first, and every effort should be made to get the patient into as good condition as possible in the time intervening before labor is due. If possible it is a good plan to keep these women in a hospital or under hospital conditions until delivery. It is, of course, a mistake to keep such patients in bed longer than two or three weeks after the congestive failure has cleared up. Normal exercise within limits of fatigue and under close supervision is beneficial rather than harmful. If improvement is not obtained after three weeks of treatment the chances of the patient going to term, and especially of obtaining a living child are small. In these patients cesarean section with sterilization is indicated. The mortality in such cases is unfortunately very high.

If such patients are not seen until after labor has begun, and sedation with morphine does not interrupt the pains, cesarean should be done if the head is high, and forceps used if it is low.

In paroxysmal tachycardia, fibrillation, and flutter it is obviously clearly desirable to avoid emptying the uterus until suitable therapy is given.

If a patient recovers from one attack of insufficiency and it recurs later in the pregnancy, experience has shown that further treatment offers little chance of restoring compensation a second time. In such cases the uterus should be emptied at once.

Regardless of how well the patient appears to be before delivery, preparation should be made for all emergencies. If there is a history of failure it is wise to digitalize the patient. Oxygen should be available and used early if needed at all. Interstitial saline, a venesection outfit, and loaded hypodermic syringes should be within easy reach. The extremely flat position of the delivery table is often distressing to the patient, and the head and shoulders should be elevated.

The actual delivery of the child should not be too hurried, and care should be taken to maintain the intra-abdominal tension by manual pressure on the abdomen, as a sudden release of pressure may cause severe surgical shock and collapse. If there is much cyanosis and congestion of the lungs it is helpful to allow bleeding to go on freely as this is equivalent to a slow venesection, and relieves the load on the right side of the heart. In any case ergot and pituitrin are contra-indicated at this time. Venesection proper should be done if pulmonary edema occurs; and morphine and atrophine administered. No undue haste should be exhibited in attempting to express the placenta. Morphine and atropine are useful after the placenta has been expelled.

There is considerable difference of opinion as to the choice of anesthetics. Probably the skill of the anesthetist is a more important factor than the type of anesthetic used. It is generally agreed that ether during the second stage is entirely satisfactory. Sodium amytal is not applicable due to the tendency to excitement during the recovery stage. Hermann feels that a general anesthetic is contra-indicated in bundle-branch block, fibrillation, syphilitic aortitis, angina pectoris, and high grade congestive failure. He

advises either local or spinal anesthetic. A few writers, particularly the English, feel that spinal anesthesia is unsafe because of the tendency toward a rapid fall in blood pressure. In this country, however, this method seems to be gaining an increasing number of advocates.

In heart disease relief is not obtained immediately after delivery as is so commonly the case in eclampsia. For the first twenty-four hours the patient must be watched carefully. She may collapse and die soon after the uterus is emptied. Very careful observation should be extended to daily visits during the first two weeks after delivery, because not infrequently a break occurs late in the puerperium, after the danger seems to have passed. The patient should be kept strictly in bed for one month after delivery.

The infant mortality varies from ten to thirty per cent. The question as to whether the mother should nurse her baby depends on social as well as physical circumstances, but as a general rule it is permissible.

SUMMARY

1. A more generalized dissemination of knowledge regarding the importance of heart disease in pregnancy will bring women to the physician early and thus obviate to a large extent the necessity of delivery in the presence of congestive failure with its resulting high mortality.

2. A careful diagnosis will separate these patients with significant heart disease from the doubtful or non-organic cases. The significant cases may then receive early and proper protection, and the others the reassurance that their ordinary activities need not be curtailed.

3. Patients who have had congestive failure, auricular fibrillation, or a large heart with aortic and mitral lesions, singly or combined, especially if their response to effort is poor, should be advised against marriage and pregnancy. If seen early in pregnancy, therapeutic abortion and sterilization should be done.

4. If the patient is not seen until after the fourth month, the pregnancy should be allowed to continue until a viable child is obtained. No method of delivery is applicable in all cases. Each one must be judged on its individual merits; the skill of the obstetrician, and the facilities which are available, often being the deciding factors.

5. The uterus should not be emptied in the presence of congestive failure. This must be treated first and the pregnancy considered later.

6. These cases should not be viewed in too gloomy a light. Many go through pregnancy without difficulty. In questionable cases, the functional rather than the organic condition of the heart should be the deciding factor.

7. We can improve our judgment on this problem by a more careful follow-up of these patients months and years following delivery as there is very little reliable information on this subject at the present time.

FILAMENT - NONFILAMENT COUNT IN CHRONIC ARTHRITIS: AN AID IN THE DIFFERENTIATION OF RHEUMATOID ARTHRITIS AND OSTEO-ARTHRITIS

In their studies of the chronic rheumatic diseases Otto Steinbrocker and Edward F. Hartung, New York, resorted to various aids to facilitate the diagnosis and differentiation of chronic rheumatoid arthritis and osteo-arthritis. Because infection is considered the etiologic factor in some forms of these diseases, they have for some time sought diagnostic assistance from the study of the blood picture. They observed that the filament-nonfilament count is a useful routine diagnostic aid in chronic arthritis. Filament-nonfilament counts in fifty patients with rheumatoid or chronic infectious arthritis were abnormally elevated in 100 per cent of the patients. The filament-nonfilament count was normal in twenty-six patients, or 52 per cent, of a group of osteo-arthritic patients, while in the rest of this group the count was elevated. The average nonfilament count was much higher (31.5 per cent) in patients with rheumatoid arthritis than in osteo-arthritic patients with an abnormal count (22.3 per cent). The filament-nonfilament count is helpful in differentiating rheumatoid arthritis from osteo-arthritis only when within normal limits. A normal count indicates that chronic rheumatoid infection is not present. An elevated count may indicate the presence of rheumatoid arthritis, mixed rheumatoid and osteo-arthritis, or osteo-arthritis with active focal infection.—*Journal A. M. A.*

A REVIEW OF THE DIETARY TREATMENT OF PSORIASIS

INCLUDING A BRIEF DISCUSSION OF A POSSIBLE ENDOCRINE ETIOLOGY

R. C. JAMIESON, M.D.†
DETROIT, MICHIGAN

Psoriasis, as well as all other diseases, has received its quota of attempted cures by various forms of diet and it is still a question of debate by eminent dermatologists whether diet alone or combined with other methods of treatment is of value in the control of this refractory disease.

As far as diet and metabolic studies in psoriasis are concerned they appear to be so closely interwoven that it might be well to briefly mention the most recent work done along those lines.

In 1913 Schamberg[20] and his associates began a thorough and systematic investigation of the question of psoriasis and found a definite nitrogen retention in the series of cases then reported. This retention occurred even when the nitrogen intake was smaller than that necessary to maintain the nitrogen equilibrium. At that time he advocated the limitation of nitrogenous food to an extremely low point and stated he did not claim that food was the cause of psoriasis but "that low protein diet, without any other internal or external treatment, did cause a disappearance of the greater part of the eruption." It was also found that the skin would later tolerate remedies which it could not tolerate before the dietary treatment.

At various times since then Schamberg and his co-workers have reported their findings in their investigations. In 1924[21] no disturbance of purin bodies was found.

In the same year[22] he discussed the etiology from the standpoint of rheumatism (infection), renal defects, defective food assimilation, pancreatic disease, digestive and nutritive disorders, disturbance of the nervous system, tuberculosis, syphilis, endocrine changes, parasites and metabolism.

In 1930 these investigators[23] reported that they found no material change from the normal with regard to the inorganic constituents of the blood—calcium, magnesium, potassium and phosphorus.

There is the possibility that there may have been a dietary fault in the cases investigated by Fleisher and Wachowiak[4] in 1925 in which they found monilia or monilia-like organisms in 82 per cent of feces, 21 per cent in the blood and 46 per cent in skin scrapings. In normal individuals 6 per cent of stools were positive, but no monilia were found on normal unexposed skin or in the blood.

Their findings, however, would appear to be negatived by the recent report of Torrey and Schwartz.[26] These writers found that the types of bacteria in the stools of psoriatics did not differ materially from those found in the stools of non-psoriatics, nor did they find any unusual number of yeasts, moniliæ, when found, being only in small numbers. Their blood cultures were also essentially negative, nor was any evidence of sensitization of an allergic nature found to test bacteria isolated from the blood or stools.

Carillon[2] in 1926 regarded the pathogenesis of the disease as being on a sympathetic-endocrine base with changes in the sympathetic tonus. The derangement of metabolism of the epidermal cells, followed by irritation of trauma or infection, increased the desquamation of the skin resulting in psoriasis.

Throne and Myers[25] found no nitrogen retention in 35 cases reported and recommended sodium thiosulphate in those having a high blood sugar and low chloride content.

Hufschmitt[9] in 1931 thought an excess of phosphorus might influence the lesions in spite of finding the blood calcium and phosphorus normal. Administration of these salts gave negative results.

Acting on the theory of a tuberculous origin for psoriasis, Nicholas, Mollard and Lebeuf[16] treated twenty cases with gold salts, reporting seven cases in which the lesions disappeared, eight with no improvement.

In accordance with the known clinical ef-

†Dr. Jamieson is a graduate of Detroit College of Medicine, 1903. He is Professor of Department of Dermatology and Syphilology at Detroit College of Medicine and Surgery, and Attending Dermatologist at Harper and Receiving Hospitals.

fect of fevers on psoriasis, Gougerot[6] reported two cases in which the lesions disappeared after high temperatures—one case due to anthrax, the other induced pyrexia.

Michon[13] reported the effect of thymus extract subcutaneously in a patient who had a coexisting psoriasis and hyperthyroidism. Both diseases responded promptly to the treatment.

In Keller's case[10] of psoriasis arthropathica the psoriasis appeared six months after thyroidectomy in a woman of thirty. Ovarian extract improved the conditions but the psoriasis did not entirely disappear.

In 1925 Hendrie[8] reported a few cases treated with parathyroid extract but no improvement was noted.

Hedge[7] in 1931 stated his belief in a relationship between psoriasis and a deficiency of calcium as regulated by parathyroid hormone. He further believed that the disease might be produced by the inhibiting influence of tuberculosis, syphilis or other gland-affecting disease, thus depriving the blood-forming mechanism of that part controlling calcium regulation. In the same manner diet and gastrointestinal disease may be instrumental in the production of psoriasis.

In accordance with his belief he thought that the treatment of psoriasis should strive to return the secretions of the parathyroid glands to normal, supply the calcium in form and quantity sufficient for organic needs and correct such other pathologic changes as may be present.

Burnett[1] reported cases cured or improved by correction of diet and malabsorption. These cases all had definite dietary faults and there is no evidence to support a claim of cure for any of these cases any more than for any other method which successfully causes lesions to disappear.

Rowe[18] in "Food Allergy" considers there is a possibility of psoriasis being a manifestation of allergy. He mentions three cases with psoriatic lesions accompanied by symptoms of food allergy, the dermal lesions improving with control of the allergic state.

Levin and Silvers[12] obtained encouraging results with a salt-free diet, an abundance of vegetables and fruits, sweat baths and oily applications.

Haldin-Davis[3] questions whether psoriasis is a result of a retardation of the oxidative processes of the skin. He refers to the report of Gans in finding a tendency to acidity in psoriatic areas.

Gans[5] gave ammonium chloride to psoriatics with an increase in the number and severity of the lesions and concluded that the result indicated a disturbance of the normal acid-alkaline balance.

In Spillman's[24] report in 1931 Gans findings were not substantiated.

Monash[15] found that psoriatic lesions involuted more rapidly by the use of viosterol and the usual antipsoriatic remedies. Those especially benefited were those improving with sunlight and ultraviolet therapy.

In Schamberg's[19] latest article he expresses surprise that the profession has received with so little enthusiasm and confidence the conclusions that he and his coworkers had reached a few years ago. He reiterates his statement that he does not consider food to be a cause of psoriasis but "a low protein diet without any other internal or external treatment did cause a disappearance of the greater part of the eruption."

He reports two cases (with photographs) to further substantiate his claim that diet control can cause psoriatic lesions to disappear. This action he explains on the ground that the rapidly proliferating and exfoliating epithelial cells are deprived of the protein they require to stimulate their growth.

He also gives in detail two diets low in nitrogen—each under 5 grams of nitrogen daily—and has never observed any harm from keeping a patient on a low protein diet for months at a time. There should be, however, sufficient calories to maintain the patient's body weight.

In order to further evaluate the low protein dietary treatment in psoriasis, a questionnaire was sent to a number of leading dermatologists to obtain their results in the use of this method.

Of forty-nine replies twenty-three reported no success; eleven had no faith in any form of diet as a cure for psoriasis; fifteen believed that some form of diet was beneficial in certain types of cases but that the dietary change might be either nitrogenous or carbohydrate depending on the case. Several also believed that acute cases were more readily controlled by reducing the protein.

In fairness to this method of treatment it should be stated that a number who reported no success admitted that the patients had not been hospitalized and probably had not had the diet rigidly supervised. The greatest objection seemed to be that it was not well

suited for any except hospitalized cases and therefore not practical.

All who had had any success with diet were agreed that it was of little or no value to place the dietary limitations in the patient's own hands with the recommendation to "cut down on meat, butter, eggs and milk."

One report stated good results in hospitalized cases either with or without a low protein diet. One mentioned a patient who became worse on the diet but improved with meat. Several regularly reduced the nitrogenous intake.

With all the mass of varied and often conflicting evidence regarding the value of diet in psoriasis, the changes in the inorganic salts of the blood, the reported cures (?) by numerous methods, endocrine extracts and others, can we weigh correctly the evidence and arrive at some definite conclusion?

To judge the evidence impartially one must conclude that in certain cases dietary changes have a favorable influence in psoriasis, but as food is not regarded as a cause of psoriasis, improvement might follow although a cure could not be expected.

It is also conceivable that all the work reported is gradually linking all the various factors noted in the behavior of psoriasis to the control of the process of keratinization by an endocrine hormone.

The following questions were asked of an endocrinologist:

1. What effect would a low nitrogenous diet have on the pituitary or other endocrine function?

2. If such effect occurred what would be the mechanism of the production of skin changes?

3. Could septic absorption produce endocrine changes that might result in skin lesions of psoriatic type?

The following letter was received in reply:

Dear Doctor Jamieson:

In answer to your letter of June 20 and the questions therein:

1. Dr. B. A. Houssay of Buenos Aires deserves credit for showing the influence of the pituitiary on general metabolism.

Dr. Houssay stated that the anterior lobe has a regulating effect on the general metabolism. Insufficiency of the anterior lobe diminishes, while hyperfunction of that body increases the basal metabolism. The hypophysis stimulates the endogenous protein metabolism as well as the fixation of protein in the tissues, thus explaining the overfunctioning of the pituitary body in the development of acromegalia and gigantism. The endogenous protein metabolism, more than the exogenous, is under the influence of the pituitary body. Pituitary insufficiency diminishes the destruction of protein in the tissues such as is seen during fasting and in phlorizin diabetes and pancreatic diabetes. The creatinine elimination, which is the index of endogenous nitrogen metabolism, is lower in dogs deprived of both pituitary and pancreas than in dogs in which the pituitary and not the pancreas has been removed, even though the latter receive meat in their diets. Hypophysectomized dogs frequently have hypoglycemia which may be fatal if not controlled by administration of sugar. Houssay concludes that animals deprived of the pituitary form less sugar at the expense of the endogenous proteins than normal animals do. The pituitary, by its stimulating effect on the consumption of endogenous protein, also has an effect on the transformation of such protein into sugar.

Credit for the above remarks should go to Dr. Houssay. Consequently, a low protein diet would slow up the pituitary and naturally general metabolism.

2. If such effect occurred what would be the mechanism of the production of skin changes? One could understand from this that the lessening of the pituitary function would produce chemical changes in the mesodermal corium of such a nature as to permit the clearing up of the psoriasis lesions. Naturally the specific chemical changes are, as yet, unknown.

3. Could septic absorption produce such endocrine changes that might result in skin changes of psoriatic type? One could readily understand that septic absorption with toxemia would, of course, stimulate protein metabolism, which in turn stimulates the pituitary funciton. One can also see that anything that stimulates metabolism would also have a tendency to stimulate grandular function.

My personal opinion concerning the pituitary function is that it affects mesodermal tissues including the mesodermal corium.

Yours sincerely,

Robert C. Moehlig.

It would appear from these answers that dietary faults, of whatever type, provided they stimulate protein metabolism, would be capable of influencing the changes necessary for the production of psoriasis. The same would also be true of focal infections. If, then, either or both of these factors were present, might not endocrine changes occur which would allow the rapid proliferation of epithelial cells and the production of psoriasis?

In this connection it is interesting to note several articles by foreign writers.

Walinski[27] treated six patients with anterior pituitary extract, all of whom responded to this method. He believed from his results that psoriasis is etiologically related to an endocrine disturbance.

Leszcynski[11] also believes some glandular disturbance is back of the etiology of psoriasis as he found Chvostek's sign in 22 per cent of his cases. (Chvostek's sign—a sudden spasm on tapping one side of the face: seen in post-operative tetany—indica-

tive of glandular (parathyroid) insufficiency.)

In 1927 Rochlin, Schirmunsky and Kotschneff[17] made a report on the results obtained from irradiation of the hypophysis for the treatment of psoriasis. Of sixteen cases treated three showed complete resorption of the lesions, improvement beginning within 14 days following the treatment; one case was noticeably improved; in three the exfoliation was diminished and in the remaining cases no change was noted.

These results compare with those obtained by irradiation of the thymus gland.

In a recent article Moehlig[14] goes extensively into the embryo hormonic relation of the endocrine glands and discusses the interdependence of the thyroid and pituitary bodies. He states "The involvement of the ectodermal pituitary glands results in secondary mesodermal tissue involvement, not, however, to the extent seen in primary pituitary changes. Likewise it must be remembered that the age at which the hypothyroid function sets in is important, for, if this takes place *after* puberty, when the sexual glands are active, a somewhat different reaction of the pituitary takes place."

It has long seemed to us that psoriasis is a disease of indirect origin, approaching eczema in its wide range of etiology, although not allergic, and it might be regarded as the result of endocrine change in certain individuals—pituitary by preference—such endocrine change being brought about by primary abnormalities of diet, by septic absorption or by any change that would alter glandular function.

If the endocrine system has complete control of the body, why could not such a baffling disease as psoriasis be under the control of that system, with particular reference to those glands whose altered function affects the dermal and mesodermal structure—the thyroid, pituitary and probably the parathyroid?

CONCLUSIONS

1. Some form of dietary regime, either low nitrogenous or carbohydrate diet, may be of value in certain cases of psoriasis.
2. There should not be a routine, fixed diet for all cases.
3. Diet may be used as an adjuvant method of treatment.
4. Dietary regime should be instituted in acute cases or in cases of markedly abnormal diets.
5. In severe or refractory cases requiring hospitalization Schamberg's dietary treatment would be especially applicable.
6. Random dietary measures at the patient's discretion are generally useless.
7. In ambulatory cases a strict dietary regime (Schamberg's) has not been found to be practical.

1309 David Whitney Bldg.

BIBLIOGRAPHY

1. Burnett: New England Med. Jour., 199:321, (Aug. 16) 1928.
2. Carillon: Rev. franc d'endocrinol., 4:32, (Feb.) 1926.
3. Davis, H.: Practitioner, 128:290, (Mar.), 1932.
4. Fleisher and Wachowiak: Arch. Derm. & Syph., 11:756, (June) 1925.
5. Gans: Derm. Woch., 80:280, 1929.
6. Gougerot: Bull. soc. franc. de derm. et syph., 38:1139, (July) 1931.
7. Hedge: Arsh. Derm. & Syph., 24:204, (Aug.) 1931.
8. Hendrie: Brit. Med. Jour., 1:18, (Jan. 3) 1925.
9. Hufschmitt: Bull. soc. franc. de derm. et syph., 38:1164 (July) 1931.
10. Keller, P.: Dermat. Woch., 93:1693, (Oct. 31) 1931.
11. Leszcynski: Dermat. Woch., 89:1535, 1929.
12. Levin and Silvers: Med. Jour. & Record, 134:179 (Aug.), 1931.
13. Michon: Bull soc. franc. de derm. et syph., 38:1085, (July) 1931.
14. Moehlig: Jour. Mich. State Med. Soc., 31:525, (Aug.) 1932.
15. Monash: N. Y. State Med. Jour., 31:889, (July 15) 1931.
16. Nicholas, Mollard and Leceuf: Bull. soc. franc. de derm. et syph., 38:1017, (July) 1931.
17. Rochlin, Schirmunsky and Kotschneff: Annales de Roentgen. et Radiol., 2:236, 1927.
18. Rowe: Food Allergy, p. 196, 1931.
19. Schamberg: Jour. A. M. A., 98:1633, (May 7) 1932.
20. Schamberg et al: Jour. Cutan. Dis., 31:697, (Oct.) 1913.
21. Schamberg et al: Arch. Derm. & Syph., 9:369, (March) 1924.
22. Schamberg et al: Jour. A. M. A., p. 211, (Oct. 8) 1924.
23. Schamberg and Brown: Arch. Derm. & Syph., 21:737, (May) 1930.
24. Spillman et al: Bull. soc. franc. de derm. et syph., 38: 364, 1931.
25. Throne and Myers; N. Y. State Med. Jour., 28:914, (Aug.) 1928.
26. Torrey and Schwartz: Arch. Derm. & Syph., 26:27, (July) 1932.
27. Walinski: Deutsch Med. Woch., 56:833, 1930.

SIX CENTURIES OF MEDICAL PROGRESS IN SWEDEN*

B. HJALMAR LARSSON, M.D.†
DETROIT, MICHIGAN

Medical historians in Sweden are fortunate in having authentic records dating as far back as the year 1302. The culture of continental Europe reached the Scandinavian peninsula rather late for Christianity was not introduced in Sweden until 829. In that year King Bjorn called the French Benedictine Father, Ansgar, to come to Sweden and preach the gospel to the heathens. It is known that the Vikings—the Nordic pirates of the sea—were in their glory between the eighth and eleventh century, still under influence of Pagan Gods.

THE PERIOD FROM 1302-1680

The town of Uppsala had become a center of religious activity and with Christianity came charity and benevolence. Here we find the first record of an organization for the care of the poor and sick. In 1302 the priest, Andreas And, founded the Uppsala Helgeandshus or Domus Sancti Spiritus. From the printed records of the regulations and the incentive in founding this house we read the following: "A few charitable men, whose devotion shall never be forgotten, saw and heard that many poor, especially in the winter, suffered the most extreme misery, so that they often died from exposure; and that sick and dying were compelled to lie about on public squares and streets, were activated by the Holy Spirit to donate their money and property, gained by the grace of God, for the building of shelter for the poor, the needy and sick, which should truthfully become the House of God."

Into this house were admitted the sick of the usual kind; when there was room no one seeking shelter was turned away. The care of these individuals was entrusted to a group of brethren known as *fraternitas* who administered what little they knew of medicine, for no physicians were available. This type of charitable institution existed in many places during the middle ages. Another type of institution was known as *hospital*, and cared especially for victims of leprosy, then a very common disease.

In Sweden, as in continental Europe, surgery began as a semi-professional occupation, not directly connected with medicine. The so-called barber-surgeons were early organized into guilds, but there are no records of medical organizations at that time. The first mentioned member of the guild was that of a man named Lamprecht who came to a sudden finish. The chronicles of Olaus Petri, a reformed priest, tell how Lamprecht, while peacefully occupied in his barber shop was abruptly led to the public square and decapitated. This was the fate of many prominent men of Stockholm who for political expedience were done away with by order of King Christian II of Denmark.

There is an account of three officials in Stockholm, who in the year 1560 carried the title "Barber-Surgeons." During the reign of Gustavus I (1520-1560) there were in the army one surgeon for each company and in the navy one for each capital ship; these navy surgeons were usually hired from Germany for the duration of an expedition.

In 1571 Johan III published a privilege letter for the guild of barber-surgeons stating in the preface that these regulations were based on suggestions by the guild and approved by it; that the King had read them and found them tolerable, useful and necessary. Here are a few extracts:

1. "There must not be more than six citizens in Stockholm who have the official title of Master Barber-Surgeon. Exception is to be made only by special royal favor."

2. "There shall be an alderman in the guild, to be chosen annually by the Burgomaster and city council of Stockholm."

3. "Whoever aspires to become master barber-surgeon must present evidence of having studied abroad, and where and in what manner he spent his years of apprenticeship."

4. "No one will be admitted to the guild, unknown to the Burgomaster and city council, in order that each can be properly ex-

*Read before the Detroit Medical History Group, April, 1933.

†Dr. Larsson received his early education in Sweden and Germany, his medical degree from the Detroit College of Medicine and Surgery in 1914. He was a U. S. Army Surgeon during the World War and served in France and Italy. He is attending surgeon at the Polyclinic of the Harper Hospital, Detroit, and Lt. Colonel in the U. S. Medical Reserve Corps.

amined to determine whether or not he is able to render proper services."

5. "No barber-surgeon shall bandage someone already treated. Whoever does so will be fined one pound of wax for each offense."

7. "The barber-surgeon who sets his colleague's servant against him will for each offense be fined one-half pound of wax. Should he use insulting words against his colleague the fine will be five pounds of wax."

11. "Whenever someone comes to the barber-surgeon to be treated for a sore or wound but does not care to return he shall pay one-half mark for the dressing, then go to any barber-surgeon he chooses."

14. "All members of the guild shall, each Sunday, put a small coin in the collection box for the fund to help a brother who may become poor through fire or otherwise."

15. "When a brother, his wife or child die, the members of the guild and their wives shall accompany the dead to the grave. Whoever neglects this shall be fined four marks for each offense. This money is to be collected for the fund to assist members in distress."

23. "No brother or apprentice shall associate with a quack, neither receive plaster nor salve from such. Whoever does so shall be fined forty marks and himself be known as a quack."

In 1663 the *collegium medicorum* was founded in Stockholm and received its privileges by royal decree. This constitutes the foundation upon which medicine in Sweden came under direct control of the state. The college had authority over the many guilds of apothecaries, chemists, oculists, stone and hernia cutters, bathers, barber-surgeons, etc. One paragraph stated that no surgeon or pharmacist shall include medical practice unless he has passed a public examination in the presence of a physician who is a member of the medical college. The rules were definite and fines were imposed for disobedience; when a serious case came under a barber-surgeon's care, he was to consult a member of the medical college. People were allowed to sell drugs at the markets only after approved by the medical college. As soon as the market was over these merchants were to leave the town promptly; they were not allowed to visit the sick or send them medicines.

Many of the prominent barber-surgeons of this period were Germans with whom the Swedish military men had made contact during the continental wars.

The period from 1680-1797

In 1680 the guilds of barber-surgeons came under a director-general named Salinus, who had learned the trade from his father, then added to his knowledge by extensive journeys in Germany, France and Wales. He instituted new rules designed to improve the training of the barber-surgeons who by this time were known as members of a profession rather than a trade. A hall for the study of anatomy was provided by the city of Stockholm and executed criminals were used for dissection. No more than eighteen master barber-surgeons were allowed in Stockholm, in order to prevent a ruinous competition and to keep the art from degenerating and losing its dignity. A sufficient number of apprentices were to be trained by the masters so that the army and navy could be adequately cared for. The by-laws provided that the master barber-surgeons were to be called together at certain times during the year, to confer with each other and report observations and experiences to improve the profession and give it a good name both at home and abroad, thereby honoring the King, the country and themselves.

Things did not always go smoothly. A royal letter in 1682 states how the King, having learned with chagrin that the recently graduated master barber-surgeons were unruly, refused to be guided by their elders, caused trouble and dissention in the guild and set poor examples for the apprentices, so that their bad behavior threatened the good reputation of surgery, threatened that if gentle rebuke, good advice and moderate firmness did not improve conditions, punishment and fines would be instituted. The president of the college was rebuked in a letter of 1685 where his attention was called to the fact that the quality of surgeons provided for the army and navy was not up to standard. He was ordered to stiffen the examinations for the men who were to serve the thousands of officers and men who risk their lives and blood for the fatherland.

The guild had always been tax exempt and when the city of Stockholm wanted to subject the members to taxation a protest

was submitted to the King. It stated that since the barber-surgeon's work was not commercial but humanitarian and the guild had to provide medical service for the army and navy, and furnish services early and late to those who requested it, it was enough that they had to pay their servants. An exemption was granted as long as barber-surgeons were not engaged in commercial work, but cancelled by King Charles XII in 1700 on the ground that whoever is entitled to protection must also pay tribute.

Upon recommendation of the director-general of the guild, King Charles XI, in 1686, published articles which were to become its magna charta and give it the necessary strength to live through years of difficulties.

His Royal Majesty graciously offered the following rules and regulations for the guidance of barber-surgeons of Stockholm, and those coming under its jurisdiction. "All members should humbly submit and attentively be guided by these." "Whoever chooses to become master surgeon in Stockholm, or elsewhere in the country, must prove, that he is of legal birth, has learned the profession well, served at least four years as an apprentice and is well posted in the art. He should then serve three years with a master who decides as to his capabilities."

Examinations were to be conducted before the entire guild, some city magistrates and the personal physician to the King. The candidate was required to demonstrate manual operations and manipulations belonging to surgery. If found capable he was asked to demonstrate his skill in the preparations of salves, plasters, ointments and to present other proofs pertaining to external remedies. When graduated he was required, as of old, to give twenty-five dollars in silver to the professional fund before he was permitted to hang out his shingle and practice his art unmolested.

Frequently disputes occurred concerning the right of barber-surgeons to practice internal medicine. This required additional rules, sponsored by the medical college which specifically prohibited the use of internal medicines by barber-surgeons, and directed them to stick to their manual operations, plasters, vesicans, gargles, etc. This annoyed the barber-surgeons a great deal and the director-general complained to the King that the barber-surgeons had practically lost their legal rights; that the army and navy surgeons would be unable to treat patients as previously directed. The King then ordered four master barber-surgeons to appear before the medical college to discuss the interpretation of the new rules. The president of the college explained that the barber-surgeons had their initial training in a barber-shop and that it was entirely manual; why should they wish to practice an art they knew nothing about? To this the surgical director replied that no one was a surgeon unless he knew how to give medicines. He could never learn this except through practice and if this was forbidden he would be useless in the military service.

These difficulties were adjusted and the surgeons gained their point for the time being. There were only a limited number of physicians while the surgeons were numerous. The army and navy were entirely in their hands and for some time the surgeons continued to treat internal diseases as formerly.

During this period there were many surgeons who felt that there should be no estrangement between physicians and surgeons, that after all they represented one profession and one purpose. To many physicians it seemed intolerable to be on the same level with a surgeon who had learned his art after the fashion of a trade. The abuse of the title, *"Doctor,"* seemed to irritate the physicians a great deal. This led a brilliant member of the medical college, Urban Hjarne, to publish an article in 1700, which explained the meaning of the title *"Doctor."* He maintained that it seemed unreasonable to use the dignified title *"Doctor"* for an oculist, hernia or stone cutter, to say *Doctor Oculorum, Herniæ, Lithotomæ*, or for a corn cutter, *Doctor Clavorum*, or for one who cuts fistula in ano *Doctor Fistulorem*. This would be as ridiculous as to call an organist the Pastor, or a chaplain a Bishop, or a common city servant a Councilman, or a court clerk a Judge. He concluded that all those who performed limited services in medicine should come under the authority of a doctor of medicine.

To illustrate the strained feeling between physician and barber-surgeon, the following story should prove interesting. A certain oculist by the name von Oltken had received a passport for foreign travel and unnoticed

by the authorities added the word "Doctor" in front of his title "*Operator* and *Oculist*," thus reading, "*Doctor, Operator* and *Oculist*." This trick caused a violent altercation between himself and the city physician, Dr. Lars Micrander, and led to a legal process, the description of which has considerable historical interest.

On the second day after Easter in the year 1700, Dr. Micrander happened to pass the above mentioned von Oltken who was engaged in conversation with a member of the city council. Upon hearing this man call von Oltken "*Doctor*," Micrander exclaimed, "for what reason do you call him "*Doctor*" who is no doctor but an oculist and operator, engaged as such by the government and deserving no other title?" To this von Oltken replied: "Before I knew or saw you I was a doctor in my profession." Micrander then said: "I have become an old man who has known you for many years when you still were an apprentice by Master Mickel Heyn." The storm broke loose when von Oltken exclaimed, "I regard you a cheater until you prove I was ever an apprentice by Mickel Heyn." A violent argument ensued during which von Oltken overwhelmed Dr. Micrander with insults. In order to prevent a gathering of people they crossed the street to a doorway where von Oltken attacked his accuser and even struck him over the head with his cane and injured his finger. Micrander left, explaining that he would have nothing further to do with von Oltken and that it would be beneath his dignity to fight with one who came under his supervision. In the court proceedings which lasted two years, Micrander, who had a great sense of humor, sued von Oltken on the following grounds:

"1st—According to the latest ordinance against those who with words or deeds abuse their superiors, four double fines for bodily injury, three double for abusive language, and prison for anyone who sets himself up against a superior.

"2nd—As an offender against the observance of Sundays and holidays. (Easter is observed for three days in Sweden.)

"3rd—Public disturber of peace, especially since the Royal Guard was approaching.

"4th—Because Her Royal Majesty was in town at the time, in Her castle.

"5th—Because he had broken his oath of loyalty to Her Majesty the Queen."

Von Oltken in defending his doctor title referred to his passport given by the Queen where out of gracious consideration for his art the title "*Doctor, Operator* and *Oculist*" was given. He declared himself "as good a man in his profession as the doctor was in his, and that he had shown proofs which the doctor could neither understand nor was able to repeat." To this Doctor Micrander replied, "If such absurd position should prevail there should be no difference between a peasant and a noble, and any cobbler in a town would be as good as the best, since the latter did not understand the mending of shoes. It was very noticeable that von Oltken talked only as far as his senses permitted and that he considered with all right thinking people, that it was much below the dignity of a doctor to incise cataracts, since many circumcisers and quacks ran about the country doing such work."

Quacks, humbugs and advertising specialists from far and wide had a fertile field during this period. The public squares were the scene of making the blind see and lame walk, loose teeth were fastened and black teeth were made white as snow. Often the mayors of towns were invited to see the itinerant oculist incise cataracts. The immediate return of vision was dramatic, and served to get these people lengthy testimonials with the affixed seal of important public men.

During this period a real advance was made in ophthalmology, which until recently had been in the hands of traveling oculists and cataract cutters. Many valuable contributions on the subject have been preserved from this time. One Carl Frederik Ribe was particularly distinguished. He had studied in the most important centers in Europe and was a friend and fellow student of John Hunter. He became a member of the Royal Academy of Science as well as its president and later published "Surgical Attempts and Notes on Diseases of the Eye." He is considered the father of Ophthalmology in Sweden.

The most distinguished of the surgeons of this period was Olof Acrel, the son of a minister, who was born in 1717. He was a student at the University of Uppsala and decided at the age of sixteen to study medicine. He became a surgical apprentice with a celebrated Stockholm surgeon and finally assistant to the old city surgeon, Solomon Schutzer, who allowed the young man to take charge of his surgical and administrative work. In 1740, at the age of twenty-three, he left for foreign lands where he continued his studies with energy and enthusiasm. He visited the famous German

Universities at Wittenberg, Halle, Leipzig and Jena; and remained for a long time at Gottingen, studying anatomy and physiology under the famous Swiss Scientist Albrecht von Haller, surgery under Richter and obstetrics under Roederer. He went to Strassburg to study anatomy under Professor Eisenmann and prosector Hommell. At the public hospital he observed operations, took part in bandaging and attended lectures on medical subjects. In 1742, in company with a Danish physician, he undertook a long journey on foot, wandering to Basel and Bern where he attended the famous Insel Hospital and there learned surgical technic. The journey continued to Freiburg, Lousanne, Geneva, Milan and Tourin where his attention was called particularly to hospitals and institutions for care of the sick. He continued to Grenoble, Lyon and Besancon, spending some weeks at each place. He made friends with the best known physicians and surgeons and was allowed to perform numerous operations in the public hospitals. Over Colmar he returned to Strassburg where he became assistant prosector. He continued to Paris, visiting the famous clinics. In the summer of 1743 he visited Le Cat in Rouen, took a trip to London to see Cheselden and Sharpe, also numerous hospitals. At this time he hurried to the French Army Camp where he was at once accepted by the surgeon-general of the army, Gerhard, as his assistant at the field hospital at Worms. Later he was ordered to the fort of Lauterburg and soon became chief surgeon in the twelve hundred bed military hospital. By order of the military authorities he lectured and gave surgical instruction to his twenty-four assistants. The fort was captured by the Austrians in July, 1744, and Acrel became a captive; he was soon liberated on his word of honor not to join any military service for one year. Although offered the position of prosector at Strassburg he preferred to return to Sweden. Shortly after returning home, Acrel became a member of the Surgical Society and quickly gained an excellent reputation and large practice.

The results of Acrel's unusual training and experience were published in 1745 in a monograph entitled, "An Explanation of the Character of Fresh Wounds, concerning their Special Nature, Signs and Progress, with an Annex about a few Conclusions Regarding their Lethality and How the Evidences for it May be Demonstrated." This was Acrel's debut as a scientific writer and brought him great renown from contemporaries everywhere. It was translated into the Dutch and German languages and Haller proclaimed it the most perfect on the subject. He became a member of the Royal Academy of Science in 1746 and of the Surgical Academy in Paris in 1750.

We give this extensive biography of Acrel because it was due to him that a scientific school of medicine was developed in Sweden. During the following fifty years his influence was reflected throughout the entire country by the building of hospitals and teaching clinics. He is deservedly known as "The Father of Surgery in Sweden."

In 1752 the Serafimer Hospital in Stockholm was opened with Acrel as chief surgeon. A new era began for medical teaching in general and of brilliant achievements in surgery in particular. This was in a large measure due to the services of Acrel as teacher and writer. The medical department was in charge of a distinguished physician, Johans Lorens Odhelius.

It is of considerable interest to note that the first man to receive the degree of Doctor of Medicine at the University of Uppsala was a man who had been trained in the school of surgery. He was Peter Hamnerin, who graduated in 1738 and was the first to urge the union of medical and surgical studies. This occurred in 1741 through an appeal to the King in which he expressed his conviction "that a doctor of medicine, besides being a good pharmacist, must of necessity be a good surgeon in order to be given the confidence and responsibility due a provincial physician." In order to gain this end he suggested that the teachers on the medical faculty were to learn enough about surgery to enable them to instruct their students in both theory and practice of medicine and surgery. A medical student was expected to gain experience in the practical art of surgery by remaining for some time with a surgeon.

It took years before the learned faculty of Uppsala finally replied to Dr. Hamnerin's proposition; the reply was written in the most cautious language, actually sidestepping the issue. Hamnerin answered by pointing out the following: "As much as it should please me if the sciences were so

taught and managed that the suffering could from one person receive the attention, care, advice and help, which he now must seek from two and at double cost, as much does it annoy me to doubt that such purpose will ever be gained while the higher authorities do not permit the combined teaching of the two sciences. The question does not concern me personally but all, and for my part I can do nothing further; I am satisfied to have announced the necessity of this and thus saved my conscience."

Half a century elapsed before the foundation was laid for the wedding of medicine and surgery. This occurred in 1797 following the dissolution of the Surgical Society.

The period between the opening of the Serafimer Hospital in Stockholm in 1752 and the dissolution of the Surgical Society in 1797 is full of interesting episodes. Both the conservatives and the progressives challenged the orderly development of medicine with their extreme views, secret propaganda and intolerance.

In 1757 a memorandum regarding the requirements for a graduate surgical apprentice read as follows:

1. In anatomy, he should know its divisions, especially know all bones in the human body by their names, positions, joints and usefulness.

2. Surgery, what it is, its divisions, the most common terms of the art. Explain the best locations for venesection and what parts could be injured thereby. State indications for venesection and quantities of blood to be drawn. He should know the following: external inflammations by names, their causes, differences, signs, progress and treatment; the characteristics of fresh wounds and their causes; how to stop bleeding, dress wounds and apply bandages; the nature of chronic sores, draining pus and the most useful remedies; fractures and displacements in general and how they should be treated.

3. In materia medica and pharmacy he should know certain substances and be able to differentiate and name which are balsams, emollients, resolvents, etc., their composition, dosage and effect. After this there were enumerated about ninety chemicals and fifty mixtures; finally the most useful pharmaceuticals and medical weights up to one pound. This qualified the young man to assist a master surgeon. The next examination was taken after serving some years as an assistant.

The first professor in anatomy and surgery was Roland Martin, a physician graduated from Uppsala in 1751 who later studied anatomy and surgery in Paris. His lectures laid the foundation for the scientific study of anatomy. Professor Martin became a member of the Royal Society and received its gold medal for a medical thesis, "Evidence that the Loss of One or More of Man's Special Senses can be Compensated by a Greater Perfection of Another." Although not a research man of great originality, Martin gave evidence, in his numerous writings, of critical and thorough knowledge of the material at hand.

In a learned paper of 1756 is an announcement that a certain professor in Botany, named Tuven, had been engaged by the Surgical Society to lecture on medical plants; also that he would take the students on botanical excursions.

It was necessary for all surgeons, but more especially for those practicing in the country, to be able to gather plants for common medicinal uses. The announcement was an eloquent appeal to students to avail themselves of this useful and beautiful science.

A varied program of lectures and demonstrations were held in Stockholm during these years by learned members of the surgical society. In 1756 it was proposed that the society should publish semi-annually, "Observations on Surgical Cases of Unusual Interest, which occur in Practice, to aid Scientific Progress, Benefit the Public, Encourage Surgery and Honor our Society." Progress was slow and it took thirteen years to accomplish this.

Many controversies occurred concerning the method of training physicians and surgeons. Should these continue as separate professions or unite into one? The definition as to what constitutes a surgeon or a medical man and what his qualifications should be were discussed verbally in public lectures and in communications to the authorities; some were signed by leading men, others were anonymous.

A proposition had been submitted to the parliament in 1756 that the medical college should be given final authority in cases of medico-legal interest. Since both medical and surgical cases would be argued in the courts it provoked heated opposition by the surgeons, on the ground that medical men

would be allowed to define and dictate the limits of surgery. A new proposition was then made that the medical college should add to its directing board four surgeons and four pharmacists. This caused a sensation in medical circles as evidenced by a private letter from the brilliant physician Linneus:

"Oh good God, if surgeons and pharmacists will be admitted to the medical college what will happen next?" The Surgical Society later opposed this plan of a mixed college because four members would constitute a minority, unable to assert themselves, and thus great harm to surgery and to the entire country would result.

Not only the parliament but the public at large became involved in this controversy between medicine and surgery. Printed leaflets discussed the subject pro and con. The medical men looked down upon the surgeons as hair cutters, barbers, bone setters and plasterers who lacked training in the arts and philosophy which are required of medical men. The surgeons emphasized the practical value of their training and ridiculed the over-emphasis of the academic training for doctors of medicine, also that their Latin and knowledge of languages was nothing unusual.

A sane solution was proposed by Herman Schutzer in 1761:

1. "The royal sanitary commission shall have a supreme authority over the medical department, as soon as three representatives of each society are elected to membership.
2. "Medical teaching shall be centralized in the country's capital.
3. "Physicians and surgeons shall enjoy equal respect and encouragement as well as liberty in the practice of their profession.
4. "The army and the country shall be amply supplied with skillful surgeons.
5. "The medical state funds shall be available equally to the medical college and the Surgical Society."

As time went on there was a marked improvement in the standards of surgical training. The government appropriated annual scholarships for post-graduate studies abroad for surgical students who were carefully chosen by the proper authorities. The candidates were required to pass a rigid examination in order to secure this financial aid. They had to follow certain itineraries, correspond with the society and report their work in anatomy, surgery and obstetrics.

It should be observed that the controversy between physicians and surgeons in Sweden at this time was not limited to that country alone. The same dissention occurred in all of continental Europe in proportion as surgery approached the level of a science and required a more comprehensive fundamental knowledge.

From the very beginning of the establishment of the first modern hospital in Stockholm in 1752, Acrel stated that the purpose of the Serafimer Hospital was not only to care for the sick but to teach and develop physicians and surgeons and to provide opportunities to gain fundamental knowledge which they could later increase by foreign travel and studies. They could observe the sick and get bedside experience and in cases of exitus have the opportunities of necropsies, which elsewhere in Sweden was considered abhorrent at that time. The most important results of the scientific work at the Serafimer Hospital was published by Acrel in 1759. This publication was entilted "Surgical Histories, Observed at the Royal Hospital, Collected and Printed with Additional Notes from Daily Records." This was Acrel's most important work and through it he became recognized as one of the great surgeons of that period. This work remains, up to the present, one of the most important contributions to medical science that ever emanated from Sweden. Many of Acrel's students contributed case histories and descriptions of operations. This collection, which was translated into Dutch and German, was, in the opinion of a contemporary, "a record of wise and real experience which can never become old; it remains an inheritance, which time cannot destroy nor a spendthrift dissipate."

Considerable has been said about surgeons and comparatively little about physicians, but at this time two medical men should be introduced whose influence in the world of science has carried their names down through the ages. Reference has already been made to Linneus and the extraordinary high regard in which he is held prompts a short account of his life. Karl von Linne, usually spoken of as Linneus, was born in 1707, the son of a minister. His parents planned a theological career but he insisted on studying medicine and botany, the usual combination of studies. He first attended the University of Lund but later moved to Uppsala where, in a short time, he became recognized as a scientific investigator of botany and a writer on that subject which made him famous. There was no medical

degree bestowed by the University of Uppsala at this time; to obtain this a foreign journey was necessary. Accordingly Linneus set out for Holland in the year 1735 and in June of the same year gained his M.D. degree from the University of Harderwijk. His thesis, written in Latin, was entitled "New Hypothesis Concerning the Cause of Intermittent Fever." He remained three and one-half years in Holland working night and day in the field of botany, publishing many books which completely revolutionized the understanding of that subject. He was patronized by the greatest intellects and scholars, made journeys to London and Paris and became known as the "Prince of Botany." Many flattering offers tempted him to remain abroad but homesickness forced him to return to his native land in 1738.

Linneus settled down in Stockholm where, in a short time he gained a large practice and became associated with the leading men in arts and sciences. He was described as particularly keen in understanding the etiology of disease and in this respect emphasized that here, as elsewhere, nothing could compare with observation. He became physician for the Admiralty and helped organize the Royal Society of Science in Stockholm, becoming its first president. In 1740 Linneus was called to the University of Uppsala to become professor in "The Practice of Medicine." He soon exchanged that post, preferring to teach natural science, materia medica, dietetics and diagnosis (Semiotic). No Swedish scientist has received greater recognition during his life or been more honored after death than Linneus. He remains to this day one of the world's most celebrated investigators in the field of natural science. He died at the age of seventy-one, and the King, in announcing his death to the parliament, declared it a national calamity. Linneus' brilliant personality, scientific contributions and general influence were so extraordinary that it becomes difficult to avoid making this a biography instead of a description of a period.

The other celebrated physician appeared a little later in the eighteenth century. He was Berzelius, who was born in 1779, and studied medicine at Uppsala with great enthusiasm. He received his medical degree at Stockholm in 1804 where he continued to live and carry on his work up to his death in 1848. Berzelius became professor of medicine and pharmacy and in 1807 assisted in the formation of the Swedish Medical Society. He visited England, France and Germany and personally knew Argo, Ampere, Humphrey Davy, Wollaston and Humboldt. He knew Goethe and during the meeting of Natural Scientists in Berlin in 1828 was given the place of honor. Berzelius was a member of the Scientific Societies of the World and published hundreds of treatises on chemistry, in Swedish and foreign journals. In a classic work on the history of chemistry H. Kopp states: "In order to review completely Berzelius' work one must of necessity consider the entire field of chemistry. There is in that science no subject to the understanding of which he did not contribute; there are no basic elements, concerning the combination of which more knowledge was not gained through him. Galvanism, electrochemistry, the atomic weights, molecular theories, the nomenclature and formula of basic elements all come within the realm of Berzelius' work. It was to him that our William Beaumont turned for assistance in the analysis of gastric juice, during his epoch making experiments. At his death, Berzelius was mourned by the entire enlightened world. The Pharmaceutical Society of Leipzig, Germany, sent to the Swedish Academy of Science, a giant wreath of oak leaves made of silver with the inscription: "To the memory of the Master of Science, J. J. Berzelius."

In 1781 appeared the first Swedish medical journal known as *"Weekly Journal for Physicians and Students of Natural Science."* The editor was a surgeon, Hagstrom, who had studied natural science at the University of Uppsala. He received the degree of Doctor of Medicine from Abo University of Finland in 1781. Hagstrom was a former student of Acrel and had been profoundly influenced by that remarkable man. He became prosector in anatomy and professor and director of the Surgical Society in 1795.

We find that trained physicians gradually became interested in the practice of surgery. Of these, Hagstrom was an outstanding example. An incident which profoundly raised the standing of surgery was the promotion of Olof Acrel to Doctor of Medicine by the University of Uppsala in 1760. Doc-

tor Linneus had always shown a decided prejudice against practitioners of surgery. He often expressed his opinion on the subject and I cannot refrain from quoting a letter and report from him that touches this particular matter. "In accordance with my dear colleague's advice I have adhered strictly to the necessity of Professor Acrel's journey hither, in case he should be offered a medical degree. When dean Rosen arrived he observed that it was the wish of the entire medical college that he be offered the doctorate, for which the professor was anxious; my colleague insisted that a letter concerning this be sent to the chancellor. This explained both the Professor's willingness and dislike of coming here. I have still adhered firmly to my resolution until I could learn my dear colleague's opinion. I know that Professor Acrel stands well with the most illustrious; I have heard that dean Rosen has already interceded for him with his excellency, who has agreed; I believe it will happen whether I agree or not. Let me have my dear colleague's thoughts on the matter by next mail." Dated 5 May 1760.

Linneus' report to the faculty, 20 May, contains the following regarding Acrel's promotion. "Since Herr Professor Acrel has distingushed himself so markedly from all other surgeons through solid enlightenment in all parts of medicine and an extensive medical practice in the capital but most prominently through his distinguished book about Cures in the Hospital, which is a jewel full of so many glorious observations etc. the faculty found it reasonable to distinguish him from the less educated by offering him a medical doctorate. They feared, however, that such distinction would give cause for abuse and for that reason he was summoned by the faculty to appear in this place and by a discussion show his knowledge. Accordingly he was heard by us in the various subjects, especially in those parts which essentially concern medicines, in all of which he proved himself so well informed that the faculty did not have many members of such experience and knowledge. The faculty found that he should be recommended to the most illustrous by eulogies and a true report, that he had proved his insight in all details, which anybody had up to the present been able to demonstrate and that he was thoroughly approved by the faculty."

It is stated that Acrel was not anxious to receive the honor proferred him without being duly examined. He left Stockholm at three o'clock in the morning, reported at Uppsala at eight and after completing his mission returned home by seven in the evening to attend to his patients. The round trip between those cities represents eighty English miles, a considerable voyage for those days and evidently a sacrifice of time for the busy physician.

We have learned from the above that the bitter antagonism between two main branches of one profession was gradually solved. By an important decree of 1797 the Surgical Society, as representing a profession, ceased to exist. The superior training and intellect of a few outstanding individuals of both branches climaxed the union.

The further development of medicine in Sweden during the last century, followed the same channels as observed in all other civilized countries.

THE PERIOD FROM 1797-1933

In conclusion I would like to mention only a few of the outstanding Swedish contributors to medical science during the last century. Among these, few can compare with Anders A. Retzius who was born in Lund in 1796. He became professor in anatomy at the medical college of Stockholm in 1824 and in coöperation with the brilliant Berzelius was active in putting medical teaching on a firm scientific basis. He was a renowned anatomist and founded the systematic teaching of pathologic anatomy as well as a rich anatomic museum. In comparative as well as human anatomy he remains to this day one of the world's greatest contributors.

From Acrel up to the middle of the nineteenth century most of the practical surgery was carried on by the chief surgeons at Serafimer Hospital in Stockholm. The best known of these were Schulzenheim, Bjerken and Ekstromer. On the medical faculties of Uppsala and Lund the position of surgery was not strong. The reason was that surgery was usually combined with anatomy or some other branch; for instance one professor represented anatomy and surgery so that actually the professors were hardly surgeons. The first truly representative surgeons at these Universities came with Mesterton, at Uppsala in 1857 and Ask at Lund in 1859. At Stockholm, Santesson and Ros-

sander had already been active for some years. These four men practically controlled Swedish surgery for about thirty years. They were all excellent men who had traveled and studied extensively and worked under men like Velpeau and Nelaton in Paris, Schuh at Vienna, Langenbeck in Berlin and at Montpellier. Although none of these men left any unusual literary contributions it should be acknowledged that Santesson's "Critical Review of the Theories of Inflammation" would probably have gained fame had it reached the world through the medium of a better known language than Swedish.

It was not until the next generation that modern surgery became established and that the epoch making discoveries of Pasteur and Lister were applied in practical surgery. The names of John Berg and Karl Gustaf Lennander are most intimately connected with this era and they remain, up to the present, the most outstanding men in surgery since the days of Acrel. John Berg became professor of surgery in Stockholm in 1885. He was an outstanding worker and teacher and contributed a great deal to the literature of modern surgery in nearly all its branches. Berg was a great organizer and clinical teacher and it was through his efforts that a modern hospital was built in Stockholm which became the first large institute for the training of nurses. This hospital is known as Sofiahemmet, named after the late Queen Sofia, consort of the great monarch Oscar II.

Lennander became professor of surgery at Uppsala in 1891. He was probably the best known of modern Swedish surgeons. He died at the early age of fifty-one but had already made many contributions of great importance. He is probably best known through his writings on abdominal surgery, especially appendicitis and peritonitis. His most important work is his careful study on the question of sensibility of organs and tissues, especially in the abdominal cavity. This became of great practical importance in the use of local anesthesia and with regard to the question of the mechanism of pain in disturbances of internal organs. He is quoted frequently in modern textbooks. In Lund, modern surgery became of importance first with the appearance of Jacque Borelius in 1898. His successor in the chair of surgery is Professor Gustaf Petren, an excellent surgeon, teacher and writer on surgical topics.

In roentgenology and radium therapy Gösta Forssell has become internationally known. He is at present professor in medical radiology at Stockholm. His contributions are numerous, some are epoch making, for instance "Observations on the Movements of the Mucous Membrane in the Digestive Canal." He is the founder of Radiumhemmet in Stockholm—an extraordinary organization for cancer research and treatment, subsidized by the government. It enables the most humble to receive expert treatment at very low cost as well as centralization of scientific records. Forssell is a great traveler and linguist. He has lectured in many countries including U. S. A. where he was invited to give the Caldwell lecture, and has had many honors bestowed on him.

Allvar Gullstrand, professor of ophthalmology at Uppsala is famous for his contributions to ophthalmology, physiologic optics, astigmatism, and others too numerous to mention. He received the Nobel Prize in Medicine in 1911 and at that time delivered a lecture "How I found the Intracapsular Mechanism of Accommodation."

Hans Jacobeus is professor in Medicine at Stockholm, and is best known for his work on Intrapleural pneumolysis in connection with collapse-therapy.

Olof Hammarsten was, up to recently, professor at Uppsala. He has been a great research worker in his field and a prolific writer. He is the editor of a well known handbook on Physiologic Chemistry.

S. Henschen, up to recently professor in internal medicine at Stockholm, is well known for his contributions to studies on diseases of the brain and nervous system. He wrote a very complete system in German on "Clinical and Anatomical Contributions on the Pathology of the Brain" in four volumes.

This sketch would be incomplete without including Axel Key among those who have made Swedish medicine known to the outside world. Axel Key was an anatomist of great renown, a celebrated hygienist, academic teacher and medical historian. The hundredth anniversary of his birth was celebrated in Sweden during the last year. Key became the dean of the medical college in Stockholm and was during his entire life a veritable giant in medical and cultural activ-

ities. Besides his innumerable scientific writings he also carried on a great deal of historical research. It was his custom, while dean of the medical college, whenever a new professor was installed, to issue a formal invitation by means of a program consisting of a treatise on some historical aspect of Swedish medicine. To Key must be given the credit for communicating to the world the medical writings of the Scandinavian countries. He was convinced that there was a wealth of valuable material, and spent the best part of his life and modest income to establish and maintain a medium for literary expression. This work was begun in 1863 with the publication of Northern Medical Archives. Key was so convinced of the value of Scandinavian medical contributions that he entertained hopes that this could be done in his native language and thus become world literature. For obvious reasons this could hardly succeed. It was he, who by his untiring work laid the foundation for the journal known as Acta Scandinavica, published in the modern languages and representing every field of medical science.

Einar Key, son of the latter, is at present professor of surgery in Stockholm and editor of Acta Chirurgica Scandinavica. He has contributed a great deal to the surgical literature of the world especially on the kidneys, lungs and blood vessels. I am indebted to him for the material which forms the background for this essay.

BIBLIOGRAPHY

Key, Axel: Inbjudningsskrifter, 1892-1897.
Kjellberg, Carl M.: Uppsala.
Nordisk Familjebok.
Petren, Gustaf: Acta Chirurgica Scandinavica, Vol. 63.
Quensel, Ulrick: Uppsala Universitets Arsskrift, 1926.
Santesson, C. G.: Axel Key, Minnesskrifter, 1932.

RECENT CONCEPTIONS OF OBESITY

A. A. WITTENBERG, M.D., C.M.†
DETROIT, MICHIGAN

The study of this disease has been much neglected by medical schools both in this country and abroad, notably England and Canada. This neglect also applies to the study of dietetics, nutrition and diet therapy. These views have been admitted and endorsed by many leaders and teachers in the medical profession, most recently by Dr. R. M. Wilder, Professor of Medicine, University of Chicago, in his Chairman's Address at the last meeting of the A. M. A. at Philadelphia, in June, 1931. Dr. Wilder went on to say that many of the newer phases along these lines have not yet been incorporated into the crowded medical school curriculum; so that the education of the physician in nutritional diseases is not much better than that of a layman. Education of physicians comes mainly from circulars of commercial houses and propaganda of purveyors of food. This propaganda is often unscrupulous and arouses such critical reesntment from physicians that they become unreceptive to authoritative information. So the profession is acquiring an antipathy, even hostility, to diet therapy, and thus arises the prevailing carelessness in these matters.

It has been estimated that one-fifth of the American people are obese. If now we review the causes of obesity, we find that most authors divide obesity into three groups: (1) Exogenous type—the simple or dietetic obesity, which refers to the condition of those persons with normal metabolic rates who over-eat and under-exercise; (2) endogenous type, or that due to endocrine dysfunction, and (3) the constitutional, congenital or hereditary form, in which it is believed normal for certain people to be under or over average weight because they are simply following out laws of inheritance.

In support of the endocrine dysfunction theory, it has been pointed out that obesity is very apt to occur at puberty, during pregnancy, after menopause, and after marriage, but obesity is just as apt to occur whenever an individual changes his social status (*e.g.*, a Ford worker becoming a business man or benefiting by an inheritance) which is often accompanied by a change in nutritional status because of increase in diet or lessened expenditure of energy. Errors in pituitary, gonadal or thyroid function are frequently

†Dr. A. A. Wittenberg was a graduate of McGill University in 1926. He took postgraduate courses at Vienna, Berlin, and London, England, 1928-1929. He is Associate in Medicine at North End Clinic, Detroit.

considered the cause of obesity (in about 3% of the cases studied). A patient with thyroid deficiency is supposed to become obese because of lowered basal metabolic rate, but lack of thyroid secretion as a cause of obesity is much over-rated. One sees very few persons who are grossly overweight because of lack of thyroid secretion, for example, one rarely sees a tremendously obese myxedema patient, for this disease not infrequently impairs the appetite, and if a person eats less obesity is impossible.

The most common gross obesity is attributed to pituitary disorders. Fröhlick's syndrome, defined as a general adiposity accompanied by sexual infantilism, in which adiposity is especially distributed about the breasts, hips and lower abdomen, so-called "girdle fat" of pituitary disease, is attributed to pituitary insufficiency on the basis of a tumor of or in the neighborhood of the pituitary gland. It is the anterior lobe and its hormone antuitrin that is supposed to be involved. A sugar tolerance curve on such a patient usually reveals an increased ability to utilize sugars. The fasting blood sugar is usually below the normal level or at the lowest limits of normal. One mechanism for the production of hunger is a low blood sugar and these patients have a low blood sugar chronically. Their appetite is thereby stimulated and an abnormal appetite is produced. Physicians have even recommended the use of insulin to remove sugar from the blood stream, in order to increase the appetite of the undernourished, and have claimed good results by following this type of therapy. It is not unlikely that there is a peculiar mechanism for handling sugar in patients suffering from hypopituitism.

Gonadal obesity is almost non-existent, but occurs often enough to be included in this category. Dercum's disease is a special form of gonadal obesity, in which there is pain on pressure in the region of the thighs and the pelvis. This condition is very rare. Trochanteric fat is generally associated with ovarian disease. Associated also with possible ovarian disease is a paradoxical obesity, so-called progressive lipodystrophy, in which there is a loss of subcutaneous fat in one portion of the body so that the remaining normal part of the body appears obese. This is rare, but a case was recently reported in the Journal of the Michigan State Medical Society of April, 1931, by Currier and Davis of Grand Rapids, which followed a bilateral oöphorectomy.

In support of simple dietetic exogenous factors, as the only basic cause of obesity, we have the views of Dr. L. H. Newburgh and his co-workers of Ann Arbor. It was Rubner who in 1928 disproved the views of Von Noorden (Vienna) who, twenty years ago, started the belief that obese people have a low basal metabolic rate. Rubner (Germany) conclusively demonstrated that the basal metabolism is directly proportional to the area of body surface, so that the more obese the individual the higher the basal metabolic rate. Similarly Newburgh has been working for a long time to disprove that obesity is caused by endocrine disease in those patients who do not lose the expected amount of weight after they are put on reduction diets. In order to deal with this problem it was necessary for Dr. Newburgh to know in any special case (1) caloric intake of diet, (2) that the patient adhered strictly to the diet, (3) caloric output or transformation of energy for the entire period of observation of the patient. This was successfully accomplished by placing a patient in a metabolic cage so that they could control his exact intake and the number of calories estimated by laboratory analysis. In order to measure energy output or total heat production of the body, Dr. Newburgh worked out two new technics, each described in *J. Clin. Investign.*, October 20, 1931. (1) By insensible loss of weight, which enables one to determine the exact amount of body tissue destroyed and so the weight loss. But it was found that the actual body weight did not decrease, even though body tissue was being destroyed; in fact, occasionally the patient may actually gain weight, even though he is being very severely underfed. But this apparent paradox is true for any type of obesity, because it was found to occur in normal individuals, if underfed in such a way that a rapid destruction of liver glycogen is brought about. (2) By the second new technic the water exchange was recorded. It was found that there is a progressive retention of water by the body and that the weight added in this way conceals the loss of weight caused by the destruction of tissue. Such observations make it clear that the course of a subject's weight cannot be used as a measure of the metabolism, as has been done in the past.

A gain in weight may occur while body tissue is being burned up, because water is being added to the body, and the weight may diminish in the face of over-feeding, because a depletion of water is also taking place. Accordingly, the main support for the hypothesis that obesity is caused by internal disease vanishes. These studies have convinced Newburgh that there is only one basic cause of obesity, and that it is invariably the result of over-eating *i.e.*, caloric intake is greater than energy output. Why does anyone eat more than he needs? The recent studies of a dietician, Mary Harrington, in an article entitled "Appetite in Relation to Weight," appearing in *J. Am. Dietetics,* Sept., 1930, have shown the dominant position of appetite in the establishment of body weight. Especially instructive has been her observation that many obese individuals exhibit emotional unstable personalities and that they have obtained relief during periods of nervous stress by repeated nibbling of food. These persons commonly tell the physician that they are "light" eaters and do not over-eat. Analysis will show that they prefer highly concentrated food, so that the amount that will distend the stomach to the point of satisfaction contains far too much energy (calories). These people who partake of food till a certain volume has been reached, regardless of composition (whether diet contains 2 or 15 calories per gram) will gain or lose weight according to the type of food set before them. One concludes from these observations that there is no specific metabolic abnormality in obesity. All obesity is "simple obesity." The increase in weight merely represents an inflow of energy greater than the outflow, and that failure of the appetite to adjust the inflow of energy (cal.) to the bodily needs is always the immediate cause of both leanness and obesity. One might postulate, then, that obesity at first is a habit of over-eating, the over-eating being primary. Later, when the obesity is well established, the over-eating becomes secondary to the obesity. This thus constitutes a vicious circle.

Some observers believe that there is a difference in physiologic structure in those who over-eat. In this connection we have the experimental work of Raab, Smith and others, dealing with centers in the hypothalmus for fat metabolism. Clinically this view is supported by the sudden gain in weight very often following an attack of encephalitis. The actual food intake was found to be less than the basal metabolic rate. There was a disturbance in the water and salt metabolism in these patients. Dr. Rowntree, of Rochester, Minnesota, believes that we should define obesity so that it covers the exact constituent of body that is increased, for example, hyperplasmic obesity—due to increase in body protoplasm rather than fat and water, and hypoplasmic obesity—due to increase in fat and water rather than body protoplasm. Newburgh believes that obesity is not due to any metabolic error but is related to two fundamental features of humanity, (1) personality or mental type of patient. Many of the really obese are not happy-go-lucky types but are hyperemotional and suffer from insomnia, and they use food as we use cigarettes or as some people use alcohol. These people have a passion for food as a comfort and for combatting unpleasant circumstances. (2) That condition which determines his shape. We recognize relation of hypophysis to the shape of the person—Hyper- giant; Hypo- short stocky.

With these two major types, a lot of other features are associated. It might follow that the short person who becomes two or three times his normal weight bulges out in the form of large fat pads and lumps all over because he has less length to distribute his extra mass. It is interesting to observe that these lumps disappear as the result of undernutrition; not only the lumps, but the pains as well disappear. This explanation for distribution of fat is better than some special metabolic explanation. The only explanation of why some people have large appetites is that they are often acquired gradually by children through training of their parents. It is strking to see how often children of obese parents are also obese. These obese patients should be kept under observation for a long time. Gradually they lose their passion for food so that in six months to a year they are perfectly safe; their desire for food has again become normal; they now have a good habit instead of a bad one.

The patient is rather impressed when you can recite the symptoms which he is having, before he tells you, namely, dyspnea, backache, leg pain, paresthesia, gas and distress after eating, and fatiguability. These and other facts, especially the dangers of obesity, are pointed out to the patient in order to gain his confidence and coöperation, which

are so essential to success. Life insurance statistics show that from thirty to sixty years of age the lowest mortality is among those from 15 to 20 per cent below average weight. The records of the Metropolitan Life Insurance Company show that after forty years of age, 20 per cent excess weight resulted in increased mortality of 30 per cent, and if in excess of 40 per cent in weight, then the mortality increased to 80 per cent. Increased mortality of obese people is especially evident in degenerative diseases affecting the heart, blood vessels and kidneys. There is a greater susceptibility to diabetes (50 per cent), gallbladder disease, hypertension and cancer. The highest mortality rate in cancer cases was found among those obese patients who were 25 per cent or more overweight.

TREATMENT

Obese patients would consult their physicians more regularly and be less inclined to practice reducing without medical supervision if they were given more specific directions. Physicians discourage patients by giving them only certain general admonitions and a list of foods. A reduction diet requires the same attention to quantitative consideration as a diet for diabetes; the actual calories must be rigidly controlled.

Emphasis should be placed by physicians upon the prevention of obesity. The principles of dietetic reduction are understood by physicians, but the necessity of reduction is not so well appreciated. (1) The basic principle in all weight loss is caloric intake control. (2) Emphasize what foods and how much of each food is to be eaten. (3) Prescribe a well mixed diet in writing, especially lactovegetarian, with sufficient bulk and protein, minerals and vitamines; it is not necessary to emphasize vitamines if you give a mixed diet. (4) Give the patient food charts to explain accurately the different food values. (5) A basic standard diet contains about 1,000 calories divided into approximately three equal parts. This basic diet should be low in fat and calories. Fat 32 gms. Protein 64 gms. Carbohydrate 54 gms. (6) Don't reduce the carbohydrates too much in proportion to fat, otherwise you may get ketosis or acidosis. (7) Broths and soups should be diminished because they contain too much salts and it is too difficult to calculate value of solid constituents. (8) Restrict fluids, do not permit over six glasses daily—not because fluids have any influence on metabolism, but because drinking excites the appetite. (9) Restrict coffee because coffee has a characteristic of saving up albumen and of irritating the cardiovascular system and kidneys, which should not be overtaxed in obese people. (10) Diets and saline mineral waters act by stimulation of intestinal peristalsis and so assist reduction, but salts should be restricted during periods of water retention. (11) A good way to prevent and check hunger is to give plenty of cooked vegetables, if the intestine can stand much incombustible material. (12) To remove retained water in obese, the Mayo Clinic (Dr. Rowntree) uses Mersalyl (H. A. Metz Co.) a mercury compound much like Novasurol; Salyrgan and Mercurosal of Parke, Davis & Co. These obese are often anemic, so best to give them iron therapy. (13) In some patients it may be necessary to send them to an institution where exact caloric intake may be measured and adhered to. (14) Rapid weight loss is to be condemned. Not over two pounds a week for the first three weeks, then not over a pound a week, otherwise the patients lose strength and get a wrinkled, haggard appearance. Slow reduction also helps the patient to develop new food habits, and a lower body weight can then be maintained without conscious effort.

The only contra-indications to a weight reduction diet is pre- or post-operative states or when toxic drugs are being given therapeutically, *i.e.*, for increased tolerance.

Glandular therapy is only partially successful. Thyroid tablets should only be used to correct hypothyroidism, if this condition is suspected as being the cause of obesity. Thyroid has a very definite stimulating effect on metabolism and if taken in large doses causes typical thyroid toxicosis. This drug should be prescribed only by a competent physician. Much ill-health has been caused by taking thyroid self-prescribed, and occasionally death has resulted. Unless thyroid medication is accompanied by careful regulation of caloric intake, no weight loss need be expected. Laboratory tests show that no result need be expected from the use of pituitary extract or gonadal extract taken by mouth (of these drugs there is, as yet, no reliable extract available).

As far as exercise is concerned, it is only indicated in younger persons—not in middle-aged or elderly—where there already exists

too much strain on the heart muscles. Avoid over-indulgence in exercise, especially if it causes excessive fatigue and great dyspnea.

Physical measures, for example, massage, high-frequency currents, sweating cures, et cetera, are useless. There are all sorts of obesity cures and reducing fads on the market, extensively advertised even to physicians, for example, Kruschen salts—a saline laxative with supposed obesity cure properties; the purchaser is also told to diet. According to investigations of A. M. A. it actually contains 71 per cent Epsom salts, 11 per cent common salt, 6 per cent KNO_3, or saltpeter, and 9 per cent citric acid. It costs 85 cents for 4 ounces, and can do no more than four ounces of Epsom salts selling for 4 cents. The daily use, as recommended, is pernicious. The only way in which Kruschen salts can reduce weight is by the production of an artificial diarrhea that will move food through the digestive tract before all of it can be assimilated. This method of treating obesity, according to Fantus in his book "Useful Cathartics" is not nearly as rational as diminishing the food intake.

It may be mentioned that plastic surgeons are often resorted to by females for the removal of localized fat deposits, such as pendulous breasts and those in the region of the abdomen and arms (after medical methods have failed and symptoms demand relief) especially in professional dancers, actresses, etc. The operation for pendulous breasts is called "mastopexy," and often breast amputation with grafting of nipples and areola is done. Lipectomy is a plastic operation for removal of subcutaneous fat of the abdomen. According to some plastic surgeons deposits so removed do not recur, because the fat cells do not grow in scar tissue.

SUMMARY AND CONCLUSIONS

1. The study of obesity and diet therapy is very important, but has been much neglected by medical schools. The medical profession must show greater enthusiasm and more serious interest in both the prevention and care of obesity.

2. We have no positive knowledge of the control of fat metabolism by the internal secretions or special centers in the midbrain, nor can it be demonstrated that obesity is due to any metabolic error.

3. The latest conception of obesity discounts endocrine dysfunction and constitutional heredity causes, but places greatest emphasis on the exogenous factors, *i.e.*, increased appetite and over-eating as the basic cause of obesity.

HEMANGIO-MYOFIBROMA OF THE UTERUS

REPORT OF A CASE

JOSEPH JOHNS, M.D.
IONIA, MICHIGAN

The uterine fibromyomas are more common during the active sexual life of women, than in any other periods. Perhaps their development is augmented by the ovarian hormone. The relationship between the fibroid uterus and sterility is still a subject of debate on account of other causative factors, such as early menopause, and co-existing diseases of both fallopian tubes or ovaries. However from 20 to 31 per cent of married women with uterine fibroid, are sterile. Most uterine fibromyomas are subject to secondary changes. Sometimes such are malignant, degenerative (hyaline, cystic, fatty, calcareous, and atrophic) infective and circulatory.

The first true uterine cavernous hemangioma case was reported by Wright in 1895, in which the tumor appeared as a cystic intraligamentary growth. During the operation, a profuse hemorrhage was encountered. Kelly and Cullen in their series of 1,674 myoma cases have noted only three occasions of angioma areas scattered throughout the tumor. In 1926 F. C. Wright reported a case where the hemangioma was attached to the right lower segment of the uterus. He describes it as an oval mass measuring 10.5 by 5.5 by 5 centimeters, smooth, glistening, and bluish-black in color. On section he found large cavernous blood vessels filled with blood. In 1924 Singer reported an unusual case of metasta-

sis of a hemangio-endothelioma in a myofibroma of the uterus. A woman of forty-one had had seven uncomplicated pregnancies and had never aborted. In 1920 she was operated on for a tumor of the breast that had been present for sixteen years without symptoms. Histologically, the tumor appeared benign. In the last three years her menses had been more profuse and she had tearing pain in the abdomen and the sacrum. She noticed that the circumference of the abdomen gradually increased and there was a sensation of a movable tumor in the lower abdomen. Examination revealed a tumor reaching from the symphysis to almost the zyphoid process, moderately movable in a craniocaudal direction, hard but elastic on the right side, and soft-elastic almost fluctuating on the left side. Pre-operative diagnosis was made as myoma with cystic softening, and total hysterectomy was performed. The histological findings indicated myofibroma of the uterus with sarcomatous change in places, and large hemorrhagic foci. About six weeks after the operation, the patient complained of pain in the sternum. In six months, the pain in the sternum spread to the ribs, and there was an increase in the size of the abdomen. Ten months after the operation, the patient died. Autopsy showed multiple tumor nodules with hemorrhagic discolorations throughout the organs, in the bones, lungs, epicardium, pleura, parietal peritoneum, liver, kidneys, and suprarenals. The enlarged liver contained very vascular confluent nodules, which, after loss of their hemorrhagic contents, looked like cysts. Microscopically, the tumor was malignant, but neither carcinoma nor sarcoma. The enlarged liver with its large projecting bluish-red blood cysts was probably the primary site of the new growth. Because of the microscopic connection of the tumor elements with Kupfer's stellate cells, the presence of larger and smaller hemorrhages and occurrence of the newly formed vessels in the earliest stages, the tumor was classified as a hemangio-endothelioma.

Uterine hemangio-fibromyoma being a rare condition, it would therefore seem that the following case is of sufficient interest to justify its report.

CASE REPORT

No. 559. Mrs. H. S., aged fifty-seven, white, married, came to the office on March 30, 1933, complaining of high blood pressure, headache, dizziness, which had been present over seven months. During the preceding two months she had suffered slight shortness of breath, fatiguing very easily, general weakness, and pain in the lower abdomen. The family history was irrelevant, except that the father died from diabetic gangrene. Patient had the usual childhood diseases, and there is no history of typhoid fever or inflammatory rheumatism.

The physical examination revealed a well developed woman, moderately obese, height 5 feet 2 inches, weight 160 pounds. The skin was of a good texture. The hair was normally distributed. The eye sight was somewhat blurred, but the pupils of the eye were equal and reacted normally. The nose was free from abnormal discharge, polypi, or deformities. The tonsils were small and not infected. The tongue was clean, and on protrusion it remained in the midline. The teeth had all been extracted. The neck showed no abnormal pulsations or cervical adenitis on palpation. The thyroid was well outlined, soft, and not diseased. The chest was symmetrical, and respiratory movements were good, and equal. There was no dullness or flatness on percussion. The breath sounds were normal. The breasts were well developed, equal on both sides, and free from fissures, masses, and eczema. The pulse rate was 89 in both radial arteries. The systolic blood pressure was 190 and diastolic was 115. The apex beat was at the left.

Abdominal examination: On inspection there was no active peristalsis, engorged veins or operative scars seen. Abdominal wall was very obese, and somewhat pendular and bulging in flanks. On palpation the liver, kidneys, and spleen were not palpable. No rigidity or tenderness over McBurney's point. An intra-abdominal tumor, the size of a six months uterine pregnancy, was palpable, extending from the umbilicus down into the pelvis. It was quite smooth, and round in shape, and freely movable in the abdominal cavity. There was some tenderness in the left lower quadrant. On percussion elicited dullness over the lower abdomen, but no shifting dullness of fluid was noticeable. No umbilical, inguinal, or femoral hernias found. Vaginal examination revealed a second degree perineal laceration, and a marked rectocele. No vaginal, urethral, or cervical discharge. The Bartholin glands were normal. The intra-abdominal tumor was felt as being round, hard, and movable. The motion was communicated to the cervix by moving the tumor from above the symphysis. Neither the uterus, ovaries, nor tubes could be differentiated. The mass could also be felt through the rectum.

Extremities were normal, except for some swelling of the feet.

Genito-urinary organs were free from specific diseases.

Neuro-Muscular: The patient is very nervous and worried about her condition. Reflexes are somewhat extenuated. She sleeps well but is easily fatigued.

Menstrual: Menstruation began at the age of twelve; it was the regular, twenty-eight day type, but in later years became profuse, and lasted from five to seven days, using many napkins but she never bled between the periods. She reached the menopause at the age of fifty-two and since then has not seen even a show. The patient was married at the age of twenty, had four children, the first two were instrumental deliveries. No miscarriages or operations.

Laboratory findings: Urinalysis showed the following—specific gravity 1.028, acid reaction, heavy cloud of albumin, no sugar, few hyaline, and fine and coarse granular casts. Wassermann test was negative.

Blood picture: Hemoglobin 80 per cent, r.b.c. 4,000,000, w.b.c. 7,000, polymorphonuclear 67 per

cent, small lymphocytes 31 per cent, large lymphocytes 1 per cent, and eosinophiles 1 per cent.

Pre-operative diagnosis: Large tubo-ovarian cyst or fibroid uterus.

Treatment: under medical and dietetic treatment the kidney conditions cleared up, and the blood pressure dropped to 140/90. Most of her other symptoms disappeared, except for the continuous dull aching pain in the left lower quadrant which was due to the tumor.

Operation: On April 20, 1933, a laparotomy was performed under ether anesthesia. Abdomen was opened by a paramedian incision, and a large fibroid tumor was exposed. Had some difficulty to deliver the tumor out of the side of the abdominal cavity. Classical suprapubic hysterectomy was performed without any incident, except when separating the fibroid from the stump of the cervix, encountered a severe hemorrhage which was coming from the tumor. Abdomen closed without drainage. Patient made a rapid recovery and was able to leave the hospital in fourteen days.

Post-operative diagnosis: Large fibroid uterus. Description of the gross specimen: Tissue consists of a fibroid uterus about 6 x 6 x 6 inches, weighing 4 pounds. Left tube and ovary are intact. A few large blood vessels are scattered over the surface of the tumor. On sectioning, the surface is mottled with large blood spaces containing clotted blood, giving one the impression of multiple adenomata. Some of the spaces are three-fourths inch in diameter, and varying from that size to a pint point size. The interstitial tissue is that of an ordinary uterine fibroid.

Pathological Report: (St. Mary's Hospital, Laboratory, Grand Rapids, Michigan). No. 88261. Microscopical—Sections from the mass removed from the uterus show a number of large vascular spaces filled with blood clots and in many of them there is a papilliferous ingrowth of endothelial cells. Some of them show only an area filled with blood and it is difficult to make out the vessel wall. However, this tumor is a hemangioma of the fibroid uterus. (G. L. Bond.)

BIBLIOGRAPHY

1. Clarke, H. H., and Bell, W. B.: Jour. Obst. and Gynec. British Empire, 9:348, 1906.
2. Kelly and Cullen: Myomata of the Uterus. W. B. Saunders Co., 1909, p. 159.
3. MacCallum: A Text-book of Pathology. Pages 963-966.
4. Reder, F.: Specimen of angioma of the uterus. Med. Fortnightly, 25:58-59, 1904.
5. Singer, S.: A case of metastasis of haemangio-endotheliomas in a myofibroma of the uterus. Monatssch. f. Geburst. und Gynäk., 66:235, 1924.
6. Wright, F. W.: Haemangioma of the uterus. Surg.,

A SELECTIVE TYPE OF THORACOPLASTIC OPERATION

WILLIAM A. HUDSON, M.D.
DETROIT, MICHIGAN

Thoracoplastic operations, as applied in the treatment of pulmonary tuberculosis, are primarily for one of two reasons: (1) To render aid in securing rest for the diseased portion of the lung, or, (2) To aid in the closure of cavities. This use of any surgical procedure in properly selected cases of pulmonary tuberculosis should be considered only as an adjunct in the application of the fundamental principle of rest in the treatment of pulmonary tuberculosis.

Heretofore we have felt that we were sacrificing the function of too much healthy lung tissue when we did a complete posterior thoracoplasty in order to obtain rest for a diseased area in the upper half of the lung field, and we have at times undertaken to limit the resections to those portions of the chest wall adjacent to the diseased lung. Frequently we were greatly disappointed in the end-result. We were disappointed at times even when a resection of the posterior segments of all the ribs was followed by the removal of the anterior ends of a number of ribs because we found that there still remained evidence that would indicate the presence of a cavity that had not been completely closed by this very radical procedure. We have felt that this unsatisfactory result of the more radical operations was due, at least in part, to the fact that by the time the anterior resections were carried out there had occurred considerable regeneration of the posterior stumps with fixation of that part of the chest wall. This prevented one from obtaining a maximum of collapse at the time of the anterior resections. We have made it a practice at all times in preparing for an operation of this sort to begin our thoracoplasty with a resection of segments of the ribs over the diseased area and it has seemed to us that if a complete resection of the ribs over the diseased area could be carried out before any regeneration of the ribs had taken place there would be a better opportunity to obtain a satisfactory collapse of this diseased area. We have hoped that it might be possible to avoid the resection of ribs, or portion of ribs, over the healthy segment of the lung and that it might even be

possible, and safe, to permit such patients to proceed without interference with the function of the phrenic nerve. We have accordingly undertaken such a program and our procedure is, when attacking a lung that shows evidence of disease in its upper portion, to do a resection of one, two, or three, and sometimes four ribs anteriorly from the sterno-costal junction lateralward to the anterior or mid-axillary line. Thus the corresponding anterior segment of the chest wall is freed of its bony support. There is a good separation of the apical portion of the lung in its anterior aspect. The patients are not disturbed by the procedure. We have usually made a skin incision extending from a point just medial to and below the point of the shoulder downward and medialward to the junction of the second or third rib with the sternum. The underlying muscle fibers are separated by blunt dissection. Care has been taken to remove the cartilage and even at times a part of the sternum has been removed. The wound is closed in layers. A drain of gutta-percha without gauze has been placed in a stab wound in the axilla. A small gauze pad is placed in such a manner that it produces mild pressure over the deroofed portion of the lung field. Usually after an interval of seven to ten days we are in a position to proceed with the resection of the posterior ends of these ribs. At this second operation we have taken, as a rule, the first, second, third, and fourth ribs. We find that there is a remarkable caving-in of all structures underlying the field when these posterior segments have been removed. In reality, we find here the appearance that one might expect to find where a very extensive extrapleural pneumolysis has been performed. After the lapse of from ten days to two weeks we are in a position to remove posterior sections of additional ribs if the diseased area has not been put to rest by these first operative procedures. We have found that we can close successfully large cavities in the upper half of the lung fie'd in this manner, and obtain negative sputums for tubercle bacilli, that we were unable to close in the old manner. We feel quit certain that our success to date has been entirely due to the fact that sufficient time has not been permitted to elapse between the first and last operation for fixation of the chest wall to take place, and we feel that it is of utmost importance that the anterior portions of the ribs be removed at the first operation. At the same time it will be borne in mind that we are firm believers in the principles that have led to the use of multiple stage operation and that we have adhered very strictly to these principles. We will admit that it is entirely possible to do a complete resection of the upper three or more ribs through a single posterior incision at a single operation, but we do not feel justified in subjecting our patients to this additional load. At times such complete collapse at a single operation will result in the trapping of secretion in a cavity and can easily end in disaster. Our patients have been in better condition with each succeeding operation than they were when the operative procedures were begun. At no time have we been forced to worry about the welfare of the patient because of shock from the operation. These operations have, for the most part, been carried out entirely under local anesthesia, in fact, in two of our institutions we have not given a general anesthetic for a thoracoplastic operation in the past two years. There is one question which may be brought up in the minds of certain of the readers; that is the question as to whether or not the marked collapse of the upper half of the chest may bring about crowding at the base of the heart to such an extent that it will interfere with the heart action. We have not seen evidence of any disturbance of the heart action. The electrocardiographic studies, so far carried out, have not indicated that any disturbance has taken place. We are continuing these observations and will present a detailed report in a later paper dealing with this type of operation.

It is our desire to bring to your attention at this time a selective type of thoracoplastic operation by means of which one can, with a reasonable degree of safety, produce closure of large cavities and collapse extensively diseased portions of the lung without unduly sacrificing healthy lung tissue. We would recommend this procedure:

1. Because it is possible to conserve healthy lung.
2. Interference with the function of the phrenic nerve can be avoided in many cases.
3. The procedure can be carried out in multiple stages.
4. Collapse of large cavities can be produced without shock to the patient.
5. Gross bodily deformity is less marked.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

ABOUT BIRTH CERTIFICATES

The State Department of Health urges that greater care be exercised by physicians in the preparation of birth certificates. An endless number of certificates are returned to the Department because the name is wrong, or improperly spelled, or the wrong date entered. Physicians as a group have not been noted for their penmanship, and many of the errors are due to the fact that the names are so carelessly written that they cannot be deciphered. The photostat process is now used for making certified copies, and it is probable that some physicians would be a good deal embarrassed if they were called to the witness stand to decipher certificates bearing their name.

The most satisfactory certificate is one that is typewritten in full, including the name of the attending physician, and then signed by him.

Another thing that is most unfortunate is that the question as to legitimacy is frequently left blank. The Department always assumes that where this is blank the child is legitimate, but it is not fair either to the child or to his parents to leave it blank since the question might very properly be raised at some time in the future as to why this was not filled out. In other words, it leaves a doubt as to the legitimacy of the child.

Under the new law, birth certificates of illegitimate children are to be filed directly with the State Department of Health and not with the local registrar.

COMMUNICABLE DISEASE NOTES

Last month we discussed the existing trend of diphtheria incidence. Diphtheria continues to be a little higher than the expectancy, considering the season and the sharp downward curve for several years past. There are, however, relatively few cases and no great number is expected before fall or winter.

The incidence of typhoid fever is considerably below that of last year. Nearly all cases occurring in 1933 have been sporadic. In 1932 there were a number of small outbreaks which brought up the rate. The usual seasonal increase has not yet made itself apparent but may be expected during August and September.

Scarlet fever is running lower than the usual low seasonal incidence. This is the first time during the year that the rate has been below the norm.

DR. BECKETT APPOINTED FIELD AGENT

Dr. M. B. Beckett, former Health Officer of Isabella County, has been appointed as County Field Agent for the Michigan Department of Health. Much of his time will be given to a study of the full-time county and district health departments.

VISITORS

The Rockefeller Foundation has sent to the Michigan Department of Health a number of their Fellows who have been students at either Harvard or Johns Hopkins Schools of Public Health, to study the work of the department and of the various county health departments. These men have spent varying periods of time with us, from a few days up to six weeks. We list the visitors:

Dr. K. K. Huang, Acting Chief, Central Hospital, Nanking, China.
Dr. M. Djamil, Member of the Netherlands East Indies Health Service, Java.
Dr. S. Harashima, Instructor in Physiology, Keio University Medical School, Tokyo, Japan.
Dr. L. M. Watson, Parochial Health Officer, Jamaica.
Dr. A. L. Gray, from Mississippi.
Dr. E. K. Musson, State Department of Health, Jefferson City, Missouri.

CHILD HYGIENE NOTES

The series of Women's Classes conducted in Oakland County by Dr. Ida Alexander has been completed. A new series was begun in Lapeer County Monday, July 31.

Infant Welfare Programs in Mason and Leelanau Counties, carried on by Julia Clock, R.N., have been concluded.

Martha Giltner, R.N., has finished a six months' Prenatal Nursing service in Mid-

land County, where she went at the request of the County Health Officer, Dr. A. W. Newitt. From Midland she went to Isabella County, where she will give six months' service developing a Prenatal Program at the request of Dr. T. E. Gibson, County Health Officer.

The county nurse in Ontonagon County is being assisted by Annette Fox, R.N., in developing an Infant and Maternal Welfare Program. Calls are being made on prospective mothers and mothers of young infants, and certificates of registration of birth are being delievered to parents of newborn babies. Miss Fox will remain in Ontonagon County the balance of the summer.

Nell Lemmer, R.N., has started an Infant Welfare Program in Iron County, and Bertha Cooper, R.N., is conducting a similar program in Clare County.

OSTEITIS FIBROSA CYSTICA OF THE SKULL WITH HEMIANOPIA AND PSYCHOSIS*

Harold D. Palmer, Reed Harrow and Louis A. Schwartz relate the case of a Jewish girl, fourteen years old, who had sustained a fracture of the occipital bone at the age of two years. At the age of nine, a change of personality occurred which by the age of twelve had assumed psychotic proportions. A bone defect was noted in the occipital region at the age of twelve and was confirmed by a roentgenologic study two years later. The lesion was diagnosed as localized osteitis fibrosa cystica. The mental symptoms became so pronounced that confinement in a psychiatric institution was necessary.

Predominating symptoms were headache, apathy, depression, a sense of unreality, dream states, and periods of amnesia and abstraction of varying duration, during which the patient heard voices and experienced visual hallucinations of a vague nature. The patient recognized these abnormal phenomena and showed insight into her condition. The mood was one of depression and anxiety; there was a pronounced suicidal trend, and a history of attempts by poison. Neurologic examination showed the presence of left homonymous scotomas, which suggested a bilateral lesion of the macular bundle pointing to a focal lesion at the calcarine cortex of the right occipital pole. Pressure of bone cyst was believed to be the cause of origin of the hallucinatory phenomena and the homonymous scotomas. A right occipital craniotomy was performed, and the protruding inner wall of the large cyst removed. Postoperative observations showed a pronounced change in mood with a complete disappearance of the hallucinations and subsidence of the mental symptoms. The basal metabolic rate was as low as twenty-eight prior to operation and the blood calcium was 8.8 mg. per 100 c.c.

In their summary, the authors state that the case reported is one of localized osteitis fibrosa cystica, resulting from an injury to the skull in infancy and giving rise to neurologic symptoms twelve years after the occurrence of the trauma. The etiologic part of the trauma is significant since recent literature has tended to designate the generalized form as dependent on the parathyroid hyperplasia and the local type as determined purely by trauma. Yet it is obviously rare that bone injury leads to the formation of cystic areas of osteitis. In the light of recently established relationship between endocrine imbalance and the malacias, it may be conjectured that there are conditioning endocrine factors in patients who develop cystic bone lesions following trauma, resulting in disordered metabolism and predisposing to anomalous repair with typical cyst formation.

Focal compression of the right occipital pole by the intrusion of the inner wall of the bone cyst produced a lesion of the calcarine cortex, evidenced by the incomplete left homonymous hemianopia. Irritation of the visual cortex in this area occasioned visual hallucinatory phenomena. The similarity between the picture presented by this patient and that of patients with tumors of the occipital lobe is worthy of emphasis. The differential diagnosis rested largely on the roentgenologic observations.

*This article was published in the Arch. Neurol. and Psychiat. (January), 1932, 27:45.

POSTOPERATIVE PULMONARY COMPLICATIONS: STUDY OF THEIR RELATIVE INCIDENCE FOLLOWING INHALATION ANESTHESIA AND SPINAL ANESTHESIA

A. Lincoln Brown and Martin Warren Debenham, San Francisco, present statistics showing the relative incidence of postoperative pulmonary complications following inhalation anesthesia and subarachnoid anesthesia. In their series of 812 cases, postoperative pulmonary complications were 4.29 times more frequent after subarachnoid anesthesia than after inhalation anesthesia in spite of the fact that more "bad risk" patients were operated on under inhalation anesthesia. The adverse ratio for subarachnoid anesthesia was found regardless of the region of the body operated on or the type of operation performed. The more closely the operative procedure approached the diaphragm, the greater was the incidence of postoperative pulmonary complications.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

SEPTEMBER, 1933

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

BUSINESS IN THE PRACTICE OF MEDICINE

That is the subject upon which Father Alphonse M. Schwitalla, S.J., Dean of the St. Louis University School of Medicine, will speak to delegates, officers and members who are present at 10 a. m. on Tuesday, September 12, in the Ball Room of the Pantlind Hotel.

Father Schwitalla has gained the respect and confidence of the profession by the manner in which he has fearlessly attacked the attempts to foist upon the profession various types of supervised practice. He has participated in many conferences upon the subject. He has addressed large audiences in many parts of the country. He has upheld the profession in its efforts to provide adequate medical care. He is a forceful, eloquent speaker.

Our Society is fortunate and privileged in securing this notable person to participate in our annual program. Every member who possibly can should hear this address. It can be safely stated that a clearer insight will be had of the problems that confront every doctor, and helpful suggestions will be made. We urge that you arrange to be present.

Appended are some of the gentleman's affiliations:

SCHWITALLA, ALPHONSE MARY, clergyman, zoologist; b. Beuthen, Upper Silesia, Germany, Nov. 27, 1882; s. Peter J. and Pauline (Welzel) S.; came to U. S., 1885; A.B., St. Louis U., 1907, A.M., 1908; Ph.D. in Zoology, Johns Hopkins, 1921 Joined Jesuit Order, 1900; ordained priest R.C. Ch., 1915; instr. chemistry, St. Xavier Coll., Cincinnati, 1907-10; instr. biology, Rockhurst Coll., Kansas City, Mo., 1917-18; asso. prof. biology, St. Louis U., 1921-24; prof. biology and dir. Dept. of Biology, St. Louis U. since 1924, dean Sch. of Medicine, 1927, dean Sch. of Nursing, 1928, regent Sch. of Dentistry. Pres. Catholic Hosp. Assn. U. S. and Can., 1928; pres. Missouri Social Hygiene Association. Major Chaplains' Reserve, U. S. A. Contrb. on philosophy of biology, investigations on environment of organisms, ameboid movement, etc. Mem. A.A.A.S., Ecol. Soc., St. Louis Acad. Science, Am. Soc. Zoology, Anthrop. Soc. America, Phi Beta Kappa, Sigma Xi, Alpha Omega Alpha, K.C. War Chaplain, Kansas City, Mo., 1918-19. Home: 221 N. Grand Av., St. Louis, Mo.—From *Who's Who in America,* Vol. 17, 1932-1933, p. 2044.

MAKING THE MOTORIST RESPONSIBLE

On October 16, 1933, the Financial Responsibility Law making the drivers of motor cars responsible for any accident caused by them, will go into effect. This law was passed by the last legislature. Its object is to make the wreckless drivers pay for any damages done by them. At present the cautious driver carries a policy covering personal liability and property damage, so that the victim of accident caused by his car may have redress. The careless driver has felt that since he had nothing, nothing could be collected from him and so he goes his way. The law will make even the uninsured motorist responsible for any damage done. After a court trial and verdict rendered he will be compelled to pay for the damages found against him. If he does not comply with these requirements the penalties are stated as follows: 1. He cannot drive an automobile again in Michigan. 2. All license plates for cars issued in his name are withdrawn and the cars cannot again be

licensed while owned by him, nor can he transfer them except by bona fide sale. 3. He shall be unable to license any new car that he may purchase.

This is a much needed law which should insure the safety of the public. Similar legislation is in operation at the present time in many states of the Union and provinces in Canada. It will doubtless work a certain hardship to some motorists but no hardship to the individual should be allowed to outweigh the safety of the public.

BIRTH CERTIFICATE

We have published each month a contribution from the Commissioner of Health at Lansing which we presume has been generally read. This department is condensed and authoritative and affords the profession an opportunity for a monthly budget of news directly from the State Health Department.

Among the items which appear this month is a plea on the part of the commissioner for greater accuracy in the filling out of birth certificates. It is a matter of great importance legally that all names should be accurately written and that the legitimacy of the child should not be left in doubt. Where the matter of domestic relations is concerned or the inheritance of property, this feature alone is of paramount importance if an injustice to some one at some later time is to be avoided.

SWEDISH MEDICAL HISTORY

Among the contributions in this number of the Journal is the paper on Six Centuries of Medical Progress in Sweden by Dr. B. H. Larsson of Detroit. This paper on medical history is out of the ordinary. It is unusual to have the opportunity of publishing a paper that is wholly Scandinavian in its scope. It is authoritatively written by one of our own members who was born in Sweden and who was largely educated there except for his medical education which was obtained at the Detroit College of Medicine and Surgery. We commend this paper to the increasing number of our members who are interested in the history of medicine. Dr. Larsson speaks and writes Swedish fluently so that his history is based upon a first hand study of Swedish medical documents as well as correspondence with some of the present day leaders in Swedish medicine.

THE EXPERT WITNESS

With the increasing stress of the depression there is a tendency among workers injured during employment to seek to reopen their alleged claims which have been disallowed. Here the doctor is called upon to assume an important rôle as expert witness. From the legal viewpoint any doctor may qualify as expert, regardless of whether he is a specialist in the subject in which he is called to enlighten the court. If, however, the opposite party to the suit calls in a witness who by years of experience or by limitation of his attention to the particular phase under question, the testimony of the person who possesses only a general knowledge of the subject is apt to be heavily discounted in the minds of the jury.

Repeating what we have said before, the medical expert witness cannot appear as an advocate. His attitude must be that of the scientist whose quest is truth. He may be compelled by circumstances even to oppose the plaintiff or defendant who may have called him. We have felt that the ends of justice might be better conserved were the court to appoint and to recompense the "expert," and thereby assure testimony that is free from any suspicion of partisanship. This would do away with a custom that frequently leaves the plaintiff's experts without remuneration and gives the pecuniary advantage to the defendant's expert. So common is the custom of some lawyers to take a case on a percentage basis—usually a very large percentage—and to requisition the services of the doctor as expert, without even the ordinary witness fee, that many doctors show little enthusiasm in the matter of appearing in court. True medical testimony is non-partisan; viewed in its true light the scientific witness would not be looked upon as he so frequently is, by the legal profession as a poor witness. A good witness from the legal viewpoint is evidently a cocksure witness. The scientifically minded person is seldom that.

GENERAL PRACTICE VERSUS SPECIALISM

(New England Journal of Medicine)

The general practitioner seems at last—or again—to be coming into his own. The old-fashioned family doctor with a Boston in lieu of a saddle-bag is about to ride into harbor on a high tide of renewed popular sentiment, if general wishes are in truth fathers of accomplished facts. Not long ago a rare

collection of representatives of the genus was exhibited in order to stimulate the emotions and relax the purse strings of the general public; the motive was worthy and the applause which thundered at the time is even now reëchoing with increased volume from the elevated rims with which every depression must be surrounded.

Any movement to replace the general practitioner in his accustomed sphere of unparalleled usefulness deserves our heartiest approbation and should win our active support. At his best—and we have all known and still know him at his best—he is an indispensable part of the sturdy organization of our highest type of community and family life, loved, respected and honored. At his worst he is no better than the worst in any other respectable field of activity. Let us do honor to the family doctor, but let us do it with the minimum of maudlin sentimentality which our national characteristics demand. The general practitioner, with a decent amount of encouragement, support and advertisement (not self-advertisement) will win exactly the place in the life of the community which he deserves, personally and according to the laws of economic demand.

THE CONVENTION AT GRAND RAPIDS

Weel.—We'll soon be haein' a meetin'
'Way doon near Rapids grand,
An' we'll hae a freen'ly greetin'
Frae th' hale Gran' Rapid's band.

We'll be sittin' near th' river,
Near th' temptin' flowin' bowl,
We'll be greeted warm an' clever,
As we members sign th' roll.

Delegates wull hae contention,
Guid an' hot wull be some pairts,
Bit th' scientific session,
Wull be warmin' tae oor hearts.

Ther'll be talks o' tonsilitis,
Belly pain an' abscess stitch,
An' ther'll be some gosh almichties,
Wi' some stuff tae cure th' itch.

Of course, we'll hae allergia,
'Sae much, 'twull mak us sneeze,
An' we'll hear about ataxia,
That cam frae haein' a squeeze.

Bit Oh, th' joy o' fellowship
Wi' freen's frae o'er th' State,
Are blessin's o' oor membership,
Far mair than ah can state.
Ah well. Guid Nicht,

Weelum.

HEAVILY FILTERED HIGH VOLTAGE ROENTGEN IRRADIATION IN CANCER THERAPY

Walter L. Mattick, Buffalo, outlines briefly his experiences of the past four years with what he characterizes as a type of short wavelength therapy, previously referred to as protracted radiation, carried on with the usual 200 kilovolt X-ray equipment in which heavy filtration (3 mm. of copper) has been substituted for the usual 0.5 mm. of copper as commonly used in the average routine roentgenotherapy of the present day. During the past four years he has administered approximately 500 such treatments to fifty-two patients with various types of malignant growths. Most of these cases were far advanced or of the ordinarily refractory types. In this category are included the following: forty-two patients with cancer of the breast (mostly far advanced), four with cancer of the larynx, four with cancer of the esophagus, one with epithelioma of the oral cavity and one with epithelioma of the cervix (far advanced). In evaluating the results thus far attained the author is in full accord with Schreiner, for many years chief surgeon at the State Institute, who refers to this heavily filtered shorter wave roentgen and teleradium therapy as the most promising types so far advanced, besides having decided advantages in treatment and producing quite similar results on the malignant conditions in which it has so far been used.—*Journal A. M. A.*

AN ORTHOPEDIC PROBLEM

High-heeled shoes and silk stockings may eventually make a race of women with hooves instead of feet, says Dr. Clifford I. Groff, of London. With apologies therefore to the dear doctor and to Henry Wadsworth Longfellow—

Art is long and time is fleeting,
And our hearts, though stout and coarse,
Dread the day when women, bleating,
Gallop like the sheep or horse.

Lives of women all remind us
We can make our lives sublime.
But why go and leave behind us
Hoofprints on the sands of time?

Let them, then, be up and doing,
Lower heels and thicker socks.
Knees and ankles are much nicer
Than an equine's hooves and hocks.

—*Border Cities' Star.*

RENAL RICKETS

According to Arthur R. Elliott, Chicago, there exists a form of rickets developing in childhood in association with, and apparently as a result of, chronic nephritis. Other causes of persistent renal insufficiency, such as congenital cystic kidney and double hydronephrosis, may effect the same result. Bodily development is markedly retarded and, when the patient survives beyond the age of puberty, sexual infantilism may exist. Chemical studies of the blood reveal an increasing azotemia coinciding with the increasing excretory inadequacy of the kidney. Strangely enough, the blood pressure is not elevated until perhaps just before death. With the high concentration of blood nitrogen, there may be manifestations of uremia. Death usually results from the kidney insufficiency. Roentgen studies of the bony structure disclose the typical appearance of rickets. Genu valgum is the principal manifestation of the pathologic bone condition and may be the first symptom to call attention to the underlying kidney condition.—*Journal A. M. A.*

Will you be in Grand Rapids, September 12, Doctor? CURDOLAC FOODS will be exhibited in Booth 11. May we greet you there? If not,

Literature and Samples on request
CURDOLAC FOOD CO.,
Waukesha, Wisconsin.

OFFICIAL PROGRAM

113th Annual Meeting Michigan State Medical Society

September 11, 12, 13 and 14, 1933

OFFICIAL CALL

The Michigan State Medical Society will convene in annual session in Grand Rapids on September 11, 12, 13 and 14, 1933. The provisions of the Constitution and By-Laws and the official program will govern the deliberations.

J. Milton Robb, *President*
B. R. Corbus, *Chairman Council*
H. J. Pyle, *Speaker*

Attest:
F. C. Warnshuis, *Secretary*

INFORMATION

MEETING PLACES

House of Delegates—Pantlind Ball Room.
Section Meetings—Civic Auditorium.
Medicine.....Main Ball Room
Surgery.....Stage—Main Auditorium
Gynecology & Obstetrics.....
Committee Rooms "B" to "E" Main Floor
Pediatrics.....Red Room—Second Floor
Dermatology..Committee Room "F" Main Floor
Eye, Ear, Nose & Throat.....
Ball Room—Pantlind Hotel
Combined Sections.....
Main Ball Room—Auditorium

General Meeting—Civic Auditorium.
Combined Section Meetings—Civic Auditorium.
Exhibits—Civic Auditorium.
Registration—Civic Auditorium.

Time—Daylight Saving.
Council Meeting—September 11, 11:00 A. M.

General Meeting

Wednesday Evening—Sept. 13, 1933—7:45 P. M.

CIVIC AUDITORIUM

Presiding: J. Milton Robb, M.D., President—Detroit.

1. Musical Prelude—7:30-7:45 P. M.
1A. Invocation: Rev. J. W. Fifield, Jr.
2. Welcome—H. J. Pyle, M.D., President, Kent County Medical Society.
3. Announcements—F. C. Warnshuis, M.D., Secretary.
4. President's Address—"Our One Great Undepressed Asset."—J. Milton Robb, M.D., Detroit.
5. Address—"American Medicine in Relation to the National Recovery Act"—E. H. Cary, M.D., Dallas, Texas, retiring President, American Medical Association.
6. Induction Into Office as President—George L. LeFevre, M.D., Muskegon.
7. Introduction of President-Elect.
8. Adjournment.

Combined Section Meetings

First Session—Wednesday, Sept. 13, 1933
1:15 P. M.

Presiding: Section Officers.

1. "Differentiation of Common Endocrine Disturbances"—Dr. R. H. Moehlig, Detroit.
2. "Physiological Functions of the Gastro-intestinal Tract"—Dr. Wingate Todd, Cleveland, Ohio.
3. "The Surgical Aspects of Syphilis"—Dr. Udo J. Wile, Ann Arbor.
4. "Diseases of the Colon"—Dr. Thomas E. Jones, Cleveland.

CONDENSED DAILY SCHEDULE

Monday, September 11	Tuesday, September 12	Wednesday, September 13	Thursday September 14	Memorandum
10:00 A. M. Executive Committee 11:00 A. M. Council	9:30 A. M. House of Delegates	9:15 A. M. Section Meetings Medicine Surgery Gynecology and Obstetrics E.E.N.T. Pediatrics Dermatology	9:15 A. M. Section Meetings	1. Registration in Exhibit Hall Auditorium 2. All Sessions in Auditorium except E.E.N.T. 3. E.E.N.T. in Ball Room Pantlind Hotel 4. House of Delegates, Pantlind Ball Room 5. See Bulletin Board for Rooms Assigned to Sections.
Afternoon	Afternoon	Afternoon	Afternoon	
2:00 P. M. House of Delegates	2:30 P. M. House of Delegates	1:15 P. M. Combined Sections	1:15 P. M. Combined Seetions	
7:30 P. M. House of Delegates	7:30 P. M. House of Delegates	7:45 P. M. General Meeting President's Address Invited Guests	Invited Speakers	Do not fail to visit Commercial and Scientific Exhibits in the Auditorium

Second Session—Thursday, Sept. 14, 1933

1:15 P. M.

1. "The Rôle of the Urologist in General Diagnosis"—Dr. Herman L. Kretschmer, Chicago, Ill.
2. "Practical Application of Orthopedic Principles"—Dr. Willis Campbell, Memphis, Tenn.
3. "An Analysis of over 100,000 Births in Iowa with Particular Reference to the Relationship between Type of Delivery and Stillbirth"—Dr. E. D. Plass, Iowa City, Iowa.
4. "Blood Chemistry in Medicine (Calcium, Sugar, Nitrogen, etc.)"—Dr. Wilbur Post, Chicago, Ill.

SECTIONAL PROGRAMS

General Medicine

Chairman: I. W. Greene, Owosso.
Secretary: S. Merrill Wells, Jr., Grand Rapids.

First Session—Thursday, Sept. 13, 1933

9:15 A. M.

1. Chairman's Address—"The Unimportance of Being an Internist"—Dr. I. W. Greene, Owosso.
2. "Some Basic Principles in the Treatment of Cardiac Failure"—Dr. M. S. Chambers, Flint.

   Mention will be made of the heart as a physiological unit in a system of organs designed to transport oxygen and carbon dioxide to and from the tissues. The mechanism of cardiac failure will be briefly discussed. The various accepted methods of treatment will be reviewed, with special emphasis placed on the therapeutic rationale of these procedures.

   Discussion—
   1. Dr. Paul Barker, Ann Arbor.
   2. Dr. Norman Clark, Detroit.
3. "Resocialization Following Modern Therapeutic Measures for the Treatment of Paralytic Dementia"—Dr. P. V. Wagley, Pontiac.
   Discussion—
   1. Dr. R. A. Morter, Kalamazoo.
   2. Dr. P. R. Sheets, Traverse City.
4. "Functional Disturbances of the Colon" (Illustrated by lantern slides)—Dr. E. L. Eggleston, Battle Creek.

   An appreciation of functional disturbances of the colon has been called to the attention of the profession by numerous observers; nevertheless, a better understanding of the function of the sympathetic and parasympathetic nervous innervation is desirable.
   Psychic disturbances are undoubtedly of great importance in producing an instability of the innervation of the colon.
   A brief review of certain cases specifically illustrating functional disturbances.

   Discussion—
   1. Dr. J. G. Mateer, Detroit
   2. Dr. J. B. Jackson, Kalamazoo.
5. "Medical Participation in Public Health"—Dr. Stuart Pritchard, Medical Director, W. K. Kellogg Foundation, Battle Creek, and Dr. Henry F. Vaughan, Commissioner of Health, Detroit.

   In spite of the present stress and strain, death rates throughout the country have continued to fall. The American people have at least been blessed with good health. The medical and dental professions have played a dominant part in establishing this salubrious condition. In order to conserve the gains which have been made in public health, the family physician must be firmly re-established as the individual to whom the public will turn for services in preventive and curative medicine.
   Medicine remains an art, the fullest appreciation of which is dependent upon the close relationship between the individual and the family medical advisor. Any plan for dispensing medical service should be promulgated and controlled by organized physicians and dentists. Preventive medicine affords a unique opportunity for re-establishing the family physician who, through service to the well, is better prepared to care for the ill. Machine-age methods are not applicable in medicine, where a knowledge of the individual's physical and mental handicaps prepares the professional man for optimum service to his client.
   During the past several years there has been developed in Michigan a program whereby the family physician becomes an active participant in the practice of preventive medicine, and many prophylactic services which were previously rendered by health departments have been transferred as an obligation to the coöperating physician in his own office. The advantages of such a plan are obvious. In the prevention of diphtheria free clinics have been eliminated and in other fields their influence has been minimized. The status of the family physician has been established. A large group being able to do more work than a small one, the efficiency of the medical care has been increased, more work has been accomplished, the cost has been equitably distributed, the physician has been compensated for service to indigents, the cost of preventive care to the community has been reduced and the budget of the health department has been conserved. A more enduring relationship has been developed and sustained between the profession, the public and the health department. The health department has confined its activities to supervision, health education and police control of communicable diseases. Significant reductions have been made in the incidence of such preventable diseases as diphtheria and smallpox and the family has been encouraged to turn to the physician for their periodic health examination, for the investigation of other departures from normal health and for the correction of impeding physical and mental handicaps.
   The development of such a plan of medical participation is dependent upon a sympathetic understanding between the organized professions and the health agencies. The professional man must be prepared to render a definite service, and the health agency must educate the public to the value of the service which the physician and dentist is able to offer. The practice of preventive medicine pays large dividends to the public, to the physician and dentist, and to the health agency.

   Discussion—
   1. Dr. F. B. Miner, Flint.
   2. Dr. R. H. Holmes, Muskegon.

Second Session—Thursday, Sept. 14, 1933

9:15 A. M.

1. "Subacute Bacterial Endocarditis"—Dr. Frank N. Wilson, Ann Arbor.
   Discussion—
   1. Dr. W. H. Marshall, Flint.
   2. Dr. E. D. Spaulding, Detroit.
2. "Primary Cancer of the Bronchus and Lung"—Dr. Willard D. Mayer, Detroit.

   The paper consists of a description of the symptoms, pathology and physical signs of primary cancer of the bronchus and lung. The marked variation in symptomatology and physical signs is presented along with the various diagnostic procedures employed in arriving at a diagnosis. The importance of early diagnosis and treatment is emphasized. Statistics of cases seen at Harper Hospital are presented. The histories of four cases are presented, one a possible cure. Lantern slides of these cases will be shown.

   Discussion—
   1. Dr. Vernor M. Moore, Grand Rapids.
   2. Dr. Wm. Evans, Detroit.
3. "Types of Nephritis and Their Treatment"—Dr. Wilber E. Post, Chicago.
   Discussion—
   1. Dr. Wm. Northrup, Grand Rapids.
   2. Dr. F. H. Lashmet, Ann Arbor.
4. *Pathological Conference* led by Dr. Wm. German, Grand Rapids, with interested clinicians leading discussion, etc.

Surgery

Chairman: George J. Curry, Flint.
Secretary: Harold K. Shawan, Detroit.

First Session—Wednesday, Sept. 13, 1933

9:00 A. M.

1. "Abscess of the Lung"—Dr. John Alexander and Dr. Cameron H. Haight, Ann Arbor.

   The gravity of abscess of the lung frequently depends upon early recognition and intensive treatment. The timely use of appropriate non-surgical measures often

cures the early stages of the disease. The chronic advanced stages stubbornly resist the simpler therapeutic procedures and then surgery offers the best chance of cure. The various means of treatment that have been found to be effective will be presented.

Discussion—

1. Dr. E. J. O'Brien, Detroit.
2. Dr. William A. Hudson, Detroit.
3. Dr. W. H. Alexander, Iron Mountain.

2. "Pulmonary Complications following Anesthesia"—Dr. Clark Lemley, Detroit.

The data presented cover a survey of various types of anesthesia used over a period of two years, 1931-1932. There are approximately six thousand cases to be drawn from. The discussion leads into the theories and possible factors involved in production of the various types of pulmonary complications. Comparative statistics will be presented, as well as statistical data on the types of complications, their incidence, the mortality, and the methods of treatment employed in the various conditions.

Discussion—

1. Dr. B. H. Van Leuven, Petoskey.
2. Dr. W. A. Manthei, Lake Linden.

3. "A Discussion of Gall Bladder Disease and Its Management"—Dr. Henry J. Vanden Berg, Grand Rapids.

Patients who continue to seek relief for trouble of gall-bladder origin should not be treated medically indefinitely. They should be given the benefit of surgery. One's conception of gall-bladder disease should not be limited to the gall bladder. It should embrace the liver and pancreas which may become involved through direct extension. In fact all parenchymatous tissues, notably the heart and kidneys may become affected. Cases well selected, or probably better said, well diagnosed before surgery, those well operated on and those that have not been neglected too long can be given the promise of results that are as good as any obtained in surgery.

Discussion—

1. Dr. C. E. Boys, Kalamazoo.
2. Dr. G. A. Seybold, Jackson.

4. "Thyroid Surgery in Southern Michigan as Affected by the Generalized Use of Iodized Salt"—Dr. Roy D. McClure, Detroit.

There has been a great reduction in the incidence of non-toxic diffuse goiter in Southern Michigan since the introduction of iodine salt. It would appear from the experiences here reported that if the thyroid iodine balance can be maintained that also toxic diffuse and nodular goiters are less apt to develop.

Discussion—

1. Dr. Simon Levin, Houghton.
2. Dr. Frederick A. Coller, Ann Arbor.

5. "Clinical Abdominal Diagnosis"—Dr. T. G. Yeomans, St. Joseph.

Experience has shown the importance of clinical diagnosis. Differentiation between diagnosis with all the scientific aids and the old fashioned method by observation, correlation of symptoms and logical deductions. Is the art of clinical observation and deduction being lost?

Discussion—

1. Dr. Alex. J. MacKenzie, Port Huron.
2. Dr. Julius H. Powers, Saginaw.

6. "End Results of Arthoplasty of the Hip"—Dr. Willis C. Campbell, Memphis, Tenn.

An analysis of 127 arthroplasties of the hip is reported. In unilateral ankylosis acute pyogenic infection is the most frequent etiologic factor; in bilateral ankylosis the etiologic factors are usually acute pyogenic infection and low grade progressive polyarticular arthritis. Arthroplasty of the hip is indicated in all monarticular affections after the process has subsided, with the exception of tuberculosis. Arthroplasty in bilateral ankylosis is successful in selected cases. The operative technic and postoperative care are described in detail.

Discussion—

1. Dr. F. C. Kidner, Detroit.
2. Dr. John T. Hodgen, Grand Rapids.

Second Session—Thursday, Sept. 14, 1933
9:00 A. M.

1. "Treatment of Peritonitis Associated with Appendicitis"—Dr. Frederick C. Coller and Dr. Eugene B. Potter, Ann Arbor.

A study is made over a three-year period of patients with general peritonitis associated with appendicitis. Comparison is made of the mortality and morbidity in a group treated by conservative measures (Ochsner regime) and delayed operation, and those previously treated by immediate appendectomy with drainage. The end results and greatly reduced death rate indicate that delayed operation is of the greatest importance in the management of late appendicitis with diffuse peritonitis.

Discussion—

1. Dr. Frederick C. Warnshuis, Grand Rapids.
2. Dr. Earl I. Carr, Lansing.

2. "Surgery of the Diabetic Patient"—Dr. C. Fremont Vale, Detroit.

Surgery in diabetic patient, either elective or essential, increasing. Coöperation between internist and surgeon necessary. Fundamentals of disturbed metabolism surgeon must know. Their relation to surgical case. Preparation of patient for operation. Operative precautions. Postoperative measures. Gangrene.

Discussion—

1. Dr. Richard M. McKean, Detroit.
2. Dr. R. L. Mustard, Battle Creek.
3. Dr. B. R. Corbus, Grand Rapids.

3. "Fractures of the Pelvis"—Dr. Harry B. Knapp, Battle Creek.

The apparent inaccessibility of the pelvic bones and the frequency of fractures today make this subject one of importance. While apparently inaccessible methods of modern diagnosis have brought practically all parts of the pelvis structure within the diagnostic field, most pelvic fractures are simple and occur without involving the pelvic viscera. Shock is an important symptom and varies in proportion to the visceral involvement. Diagnosis of bladder rupture must be based on other findings than blood in urine. Cystoscopic examination with sodium iodide injection, or air injection, followed by x-ray is the only sure method. Prompt operation in presence of ruptured bladder is imperative. Central dislocation of the head of the femur through fracture of the acetabulum requires special reduction procedures to withdraw head and keep in place with lateral as well as longitudinal traction. Bladder rupture may be intra- or extraperitoneal, and must be dealt with accordingly. Foot-drop is an occasional complication due to injury of lumbosacral cord. Treatment and after care are important, and the end result generally good.

Discussion—

1. Dr. Thomas V. Carney, Alma.
2. Dr. R. W. McGregor, Flint.

4. "Changing Trends in the Treatment of Prostatic Obstruction." (Lantern slides)—Dr. Herman R. Kretschmer, Chicago, Ill.

Discussion—

1. Dr. H. W. Plaggemeyer, Detroit.
2. Dr. Alvin Thompson, Flint.

5. "Carcinoma of the Breast"—Dr. Thomas E. Jones, Cleveland, Ohio.

This paper deals briefly with the diagnosis of carcinoma of the breast. How early can it be diagnosed? Is it wise to leave any tumor alone?

There appears on the horizon an oncoming wave of conservatism which I believe will prove disastrous. Too much attention has already been paid to cosmetic rather than curative results.

The radical operation described. Relative value of x-ray therapy. Statistics and end results.

Discussion—

1. Dr. Richard R. Smith, Grand Rapids.
2. Dr. William E. Shackleton, Kalamazoo.

Gynecology and Obstetrics

Chairman: Norman F. Miller, Ann Arbor.
Secretary: Harold C. Mack, Detroit.

First Session—Wednesday, Sept. 13, 1933
9:00 A. M.

1. Chairman's Address—Dr. Norman F. Miller, Ann Arbor.
2. Report of Committee on Clinical Problems—Dr. Ward Seeley, Detroit.
3. "The Treatment of Primary Dysmenorrhea"—Dr. L. E. Bauer, Detroit.
4. "Conservative Treatment of Placenta Previa"—Dr. Ward Seeley, Detroit.

The management of placenta previa, exclusive of cesarean section, is illustrated in a series of cases. Good results can be obtained with patients in poor condition, or in patients where previous manipulations or well-advanced cervical dilatation render cesarean section inadvisable. The importance of preliminary blood transfusion for the reduction of mortality is stressed. Methods of treatment advised include (1) artificial rupture of membranes, (2) Braxton-Hicks version, (3) insertion of dilatable bag. The dangers of *accouchement forcé* are emphasized.

5. "Ovarian Disease in Relation to the Painful Breast"—Dr. J. E. Rosenfeld, Battle Creek.
6. "Hemorrhage from Ruptured Graafian Follicle Cysts with Case Reports"—Dr. S. L. LaFever, Ann Arbor.

Second Session—Thursday, Sept. 14, 1933
9:00 A. M.

1. Business Session—Election of Officers.
2. Report of Section Committee on Birth Control—Dr. Harold Mack, Detroit.
3. Report of Committee on Birth and Death Certificates—Dr. Russel Alles, Detroit.
4. "Toxemias of the Later Months of Pregnancy"—Dr. A. Dale Kirk, Flint.
5. "The Effect of Labor Upon the Kidneys of the Pregnant Woman"—Dr. J. E. Cooper, Battle Creek.

   The paper will be divided into four subdivisions, namely, (1) eclampsia, which will probably not be discussed, (2) chronic nephritis and (3) the milder forms of renal fatigue so-called, (4) the upper urinary tract dilatations, including pyelitis.
6. "The Forceps in General Practice"—Dr. E. D. Plass, Prof. of Obstetrics and Gynecology, University of Iowa, Iowa City, Iowa.

   The speaker for the general session will be Dr. E. D. Plass. His title will be—"An Analysis of over 100,000 Births in Iowa with Particular Reference to the Relationship between Type of Delivery and Stillbirth."

Otolaryngology and Ophthalmology

Chairman: CARL C. MCCLELLAND, Detroit.
Secretary: RALPH B. FAST, Kalamazoo.

First Session—Wednesday, Sept. 13, 1933
9:15 A. M.

Ophthalmology

1. Chairman's Remarks—Dr. Carl McClelland, Detroit.
2. "Focal Infections in Cataract"—Dr. J. G. Huizinga, Holland.

   This paper is not based on laboratory experimentation, but on clinical observation over a period of more than forty years. It discusses the possible influence of focal infections of the head as etiologic factors in the cause of that comparatively rare type of cataract encountered in early mid-life but in many other respects similar to the simple senile type. It proposes a theory for the etiology of senile cataract.

   Discussion—
   1. Dr. Dodge, Battle Creek.
   2. Dr. John Wetzel, Lansing.
3. "Superficial Punctate Keratitis"—Dr. Alfred Dean, Grand Rapids.

   The past four years have brought financial losses, worry, insanity and suicide. Lack of employment has meant forced economy, resulting in nutritional deficiency; while prolonged mental strain has brought nerve exhaustion with defective assimilation responsible for a nutritional deficiency or avitaminosis reflected as a visible symptom, superficial punctate keratitis.

   Discussion—
   1. Wm. H. McGarvey, Jackson.
   2. C. W. Ellis, Lansing.
4. "Intra-ocular Foreign Bodies with Review of Eighty Cases"—Dr. Don Marshall, Ann Arbor.

   After considering briefly some of the recent literature on the management of intra-ocular foreign bodies, a concise analytical review of eighty cases is presented, raising questions concerning the urgency, and proper method, of extraction of intra-ocular foreign bodies, and the ultimate prognosis of such injuries.

   Discussion—
   1. Dr. H. L. Begle, Detroit.
   2. Dr. H. T. White, Flint.
5. "Operations on the Orbit"—Dr. W. S. Benedict, Mayo Clinic.

   Operations for tumor of the orbit are frequently followed by deformities unless tissue loss can be minimized or compensated. Conservative methods of surgical treatment of tumor, abscess and malformation are described. Reconstruction of the socket for prosthesis by marsupialization and by skin graft is described and illustrated by lantern slides.

   Discussion—
   1. Dr. M. M. Dewar, Grand Rapids.
   2. Dr. Albert S. Barr, Ann Arbor.
6. "The Management of Glaucoma"—Dr. F. Bruce Fralick, Ann Arbor.

   This paper deals largely with a comparison of results of the various methods used in dealing with glaucoma simplex at the University of Michigan during the past five years. A brief review of the anatomic changes is given and illustrated in order to demonstrate why some forms of therapy are doomed to failure at one time and not at others. The medical and surgical procedures used in obtaining the tabulated comparative results are described, as well as the method of selection of the form of therapy to be used in any particular case.

   Discussion—
   1. Dr. R. D. Sleight, Battle Creek.
   2. Dr. A. R. McKinney, Saginaw.

Round Table Discussion at noon—Dr. W. S. Benedict.

Questions should be handed to the secretary early for Dr. Benedict's consideration.

Second Session—Thursday, Sept. 14, 1933
9:15 A. M.

Otolaryngology

1. "Foreign Bodies in the Bronchus: Report of Four Cases"—Dr. Walter K. Slack, Saginaw.

   Four cases are reported. The first, a ball bearing in the bronchus of an eight-year-old girl. The remaining three cases are of aspirated peanuts, each giving a different history and symptoms, the duration of their presence in the bronchus varying from one to three weeks.

   Discussion—
   1. Dr. G. C. Kreutz, Detroit.
   2. Dr. H. L. Simpson, Detroit.
2. "Management of Chronic Sinus Disease"—Dr. Ferris Smith, Grand Rapids.

   Discussion—
   1. Dr. James E. Cranshore, Detroit.
   2. Dr. Jacob Wendel, Detroit.
3. "Studies in Applied Anatomy of the Cervical Region"—Dr. A. C. Furstenberg, Ann Arbor.

   Discussion—
   1. Dr. Milton Robb, Detroit.
   2. Dr. A. J. Cortopassi, Saginaw.
4. "Suppurative Labyrinthitis"—Dr. Neil Bentley, Detroit.

   Two cases are being reported, one an acute suppurating ear with the development of an acute suppurative labyrinthitis and beginning meningitis. The second case was an old chronic mastoid with sudden onset of acute labyrinthitis, which sent on to complete destruction of the labyrinth and beginning facial paralysis. A radical labyrinth operation was performed in both cases with complete recovery.

   Discussion—
   1. Dr. Emil Amberg, Detroit.
   2. Dr. Oliver McGullicuddy, Lansing.

Round Table Conference at noon—Dr. A. C. Furstenberg.

Please hand to the Secretary questions to be discussed.

Pediatrics

Chairman: Campbell Harvey, Pontiac.
Secretary: Edgar E. Martmer, Detroit.

First Session

Wednesday, September 13, 9:00 A. M.

1. "Petrositis (Infections of the Temporal Bone)"—Dr. W. S. Gonne, Detroit.
   Case reports and a discussion of methods of treatment with lantern slides and roentgenograms.
2. "Diagnosis of Bronchiectasis in Childhood"—Dr. C. K. Hasley, Detroit.
   An evaluation of the value of roentgenograms and lipiodal injections in the diagnosis of early bronchiectasis in childhood. Lantern slides and roentgenograms.
3. "Diphtheria"—Dr. D. W. Gudakunst, Detroit.
   A survey of the diphtheria situation as it exists today in comparison with ten years ago including a discussion of the value of the Schick test and failure of antitoxin in certain cases.
4. "Newer Methods of Treatment of Congenital Syphilis"—Dr. A. Woodburne, Grand Rapids.
   An evaluation and discussion of the recently introduced arsenicals for oral administration and a comparison of the results obtained with the more generally known and utilized methods of treating this disease.
5. Reserved for Ann Arbor.

Second Session

Thursday, September 14, 9:00 A. M.

1. "Halibut Liver Oil with Viosterol"—Dr. E. W. May, Detroit.
   A discussion and report of a series of premature infants treated with the above preparation.
2. Subject to be announced—Dr. Rockwell M. Kempton, Saginaw.
3. Subject to be announced—Dr. John Parsons, Ann Arbor.
4. "Current Conceptions of Blood Dyscrasies in Infancy"—Dr. T. B. Cooley, Detroit.
   A résumé of the recent work with blood.
5. "Calcium Metabolism"—Dr. A. E. Newberg, Ann Arbor.
   Dr. Newburgh will give a résumé of the recent advances in calcium metabolism.
6. "Physiology of the Gastro-intestinal Tract in Infancy and Childhood"—Dr. Wingate Todd, Cleveland, Ohio.

Dermatology and Syphilology

Chairman: G. H. Belote, Ann Arbor.
Secretary: A. R. Woodburne, Grand Rapids.

Wednesday, Sept. 13, 1933—9:15 A. M.

1. "Metaphen Dermatitis—A Report of Two Cases" Dr. G. H. Belote, Ann Arbor.
2. "Some Unusual and Interesting Lesions of the Oral Mucous Membrane"—Dr. A. R. Woodburne, Grand Rapids.
3. "Pseudosyphide"—Dr. P. O. Poth, Ann Arbor.
4. "A Discussion of the Diseases of the Instability Group"—Dr. Ruth Herrick, Grand Rapids.

Thursday, Sept. 14, 1933, 9:15 A. M.

Clinic: Presentation and Discussion of Cases.

Make a list of your needs and give your orders to the firms making commercial exhibits. Patronize them—they patronize you.

HOUSE OF DELEGATES

Speaker: Henry J. Pyle, M.D., Grand Rapids.
Vice-Speaker: C. E. Dutchess, M.D., Detroit.
Secretary: F. C. Warnshuis, M.D., Grand Rapids.

First Session

Monday, September 11, 1933, 2:00 P. M.

Ball Room—Pantlind Hotel

1. Call to Order.
2. Report of Credentials Committee.
3. Roll Call.
4. Speaker's Address.
5. President's Address.
6. President-Elect's Address.
7. Annual Report of Council.
8. Appointment of Reference Committees.
   (a) Council.
   (b) Society Affairs.
   (c) Miscellaneous Business.
   (d) Report of Committees
9. Report of Committee on Economics—W. H. Marshall, Chairman.
   This is a special order of business determined at the special meeting of July 12. Upon completion of this special order the House will proceed with the following order of business at hours to be determined at the close of each session.
10. Election of Nominating Committee.
    (a) To Nominate:
        1. One Delegate to A. M. A.
        2. Two Alternate Delegates to A. M. A.
        3. Place for Annual Meeting.
11. Committee Reports.
    1. Legislative.
    2. Civic and Industrial Relations.
    3. Woman's Auxiliary.
    4. Survey of Medical and Health Agencies.
    5. Radio Committee.
    6. Preventive Medicine.
    7. Delegates to A. M. A.
    8. Special Committees.
12. Resolutions and New Business.
13. Adjournment.

Second Session

Tuesday, September 12, 1933

1. Call to Order.
2. Roll Call.

2A. 10:00 A. M. Special Address: Rev. Father Alphonse Schwitall, S.J., Dean of Medicine, St. Louis University, St. Louis, Mo.

[The Delegates will be privileged to hear this distinguished speaker. Doctors, hospital and health officials, and nurses, are urged to hear this address.]

3. Reference Committees.
   (a) Council
   (b) Miscellaneous Business
   (c) Society Affairs.
   (d) Reports of Committees.
4. Unfinished Business.
5. Resolutions and New Business.
6. Adjournment.

Third Session

1. Report of Credentials Committee.
2. Roll Call.
3. Reports of Reference Committees.
4. Elections:
   1. President-Elect.
   2. Delegate to A. M. A.
      L. J. Hirschman—Term Expiring.

3. Alternate A. M. A. Delegates.
   Carl F. Moll—Term Expiring.
   Henry E. Perry—Term Expiring.
4. Councilors.
   13th District—B. H. Van Leuvan—Term Expiring.
   14th District—J. D. Bruce—Term Expiring.
5. 1934 Meeting Place.
6. Speaker.
7. Vice-Speaker.
8. Unfinished Business.

DELEGATES AND ALTERNATES

Annual Meeting, Grand Rapids, Sept. 11-14, 1933*

Alpena County
E. L. FOLEY
H. J. Burkholder

Barry County
M. R. KINDE
Guy Keller

Bay-Arenac-Iosco
L. F. FOSTER
A. D. Allen

Berrien
W. C. ELLET
Edwin Vary

Branch

Calhoun
C. S. GORSLINE
A. T. HAFFORD
W. L. Godfrey
A. D. Sharp

Cass

Chippewa-Mackinac

Clinton
G. H. FRACE
D. W. Hart

Delta
JOHN W. TOWEY
Louis P. Groos

Dickinson-Iron

Eaton
A. G. SHEETS
K. Anderson

Genesee
FRANK REEDER
GEORGE CURRY
C. F. MOLL
H. Randall
Donald Wright
Max Burnell

Gogebic

Grand Traverse-Leelanau
E. B. MINOR
E. F. Sladek

Gratiot-Isabella-Clare
T. J. CARNEY
W. L. Harrigan

Hillsdale
A. E. MARTINDALE
C. T. Bower

Houghton
WM. T. KING
W. A. Manthei

Huron-Sanilac
W. D. HOLDSHIP
D. D. McNaughton

Ingham
L. G. CHRISTIAN
KARL BRUCKER
Fred Huntley
Ford DeVries

Ionia-Montcalm
W. W. NORRIS
C. H. Peabody

Jackson
PHILLIP RILEY
JAMES O'MEARA
C. S. Clarke
H. A. Brown

Kalamazoo
F. T. ANDREWS
L. V. ROGERS
N. L. GOODRICH
A. A. McNabb
Paul Schrier
John MacGregor

Kent
A. V. WENGER
G. H. SOUTHWICK
J. D. BROOK
CARL F. SNAPP
LEON E. SEVEY
A. M. Moll
E. N. Nesbitt
E. W. Schnoor
J. N. Holcomb
F. A. Votey

Lapeer
H. M. BEST
J. A. Spencer

Lenawee
E. C. RAABE
A. W. Chase

Livingston
R. S. ANDERSON
J. J. Hendren
R. S. Anderson

Luce
H. E. PERRY
E. H. Campbell

Macomb
J. N. SCHER
G. F. Moore

Manistee
A. A. McKAY
Stephen Fairbanks

Marquette-Alger
V. VANDEVENTER
R. A. Burke

Mason
L. W. SWITZER
Chas. Paukstis

Mecosta
G. H. YEO
Paul Kilmer

Menominee

Midland
CHARLES L. MacCALLUM
Arthur W. Newitt

Monroe
P. D. AMADON
D. C. Denman

Muskegon
F. W. GARBER, SR.
J. C. Bloom

Newaygo
A. C. TOMPSETT
H. R. Moore

Northern Michigan
FRED MAYNE
Guy Conkle

Oakland
C. T. EKELUND
R. H. BAKER
A. D. Riker
D. G. Castell

Oceana

Otsego-Montmorency, Crawford-Oscoda-Roscommon-Ogemaw
CLAUDE R. KEYPORT
Clarence G. Clippert

*Delegates in capitals, alternates in lower case.

Ontonagon
Ottawa
Saginaw
R. M. KEMPTON
G. HARRY FERGUSON
Donald Durman
Schoolcraft
A. R. TUCKER
Donald Ross
Shiawassee
I. W. GREENE
St. Clair
A. L. CALLERY
W. P. Derck
St. Joseph
R. A. SPRINGER
J. V. Blood
Tri-County
Tuscola
C. N. RACE
E. C. Swanson
Washtenaw
JOHN SUNDWALL
H. H. CUMMINGS
S. Donaldson
Geo. Muehlig
Wayne
H. W. YATES
H. W. PLAGGEMEYER
W. D. BARRETT
H. A. LUCE
R. M. McKEAN
A. W. BLAIN
E. C. BAUMGARTEN
A. P. BIDDLE
WM. J. STAPLETON, JR.
G. C. PENBERTHY
B. L. CONNELLY
E. D. SPALDING
J. L. CHESTER
L. J. CARIEPY
W. R. CLINTON
WM. S. REVENO
C. F. BRUNK
A. E. CATHERWOOD
L. T. HENDERSON
C. K. HASLEY
B. U. ESTABROOK
D. I. SUGAR
S. W. INSLEY
L. O. GEIB
D. P. FOSTER
C. K. Valade
F. C. Witter
C. E. Lemmon
L. W. Shaffer
J. C. Kenning
R. S. Goux
G. A. Wilson
J. B. Rieger
S. A. Flaherty
R. Lee Laird
C. E. Umphrey
H. W. Peirce
S. E. Gould
E. V. Beardslee
C. S. Ratigan
F. S. Perkin
V. L. Van Duzen
G. M. Livingston
J. H. Chance
G. L. Coan
W. H. Shipton
A. H. Bracken
R. C. Leacock
E. H. Engel
A. H. Whittaker

LEGISLATIVE COMMITTEE

The experiences of this committee in the course of its work through this unusual, uncertain, prolonged session of the Legislature would have supplied a Paul DeKruif or a Bernard Shaw not only with material for fascinating entertainment for their readers but for lessons in social, economic and political obligations, burdening the medical profession today. Difficulties for and the obstacles against good legislation must have become so thoroughly comprehended by the medical profession that it can effectively organize its great potential political power and ally itself with other professions and friendly groups awaiting alliance. This potential influence of the nearly six thousand doctors in Michigan, if harnessed and coördinated, could accomplish anything for the good of public health that might be desired. Because medical men have never harmonized politically and although individual doctors are held in high esteem, small groups have been able to interfere with and obstruct legislation requirements in medical education and public health standards.

Circumstances today create a challenge as never before and the medical profession must play a dominating part in Michigan's politics. It must organize the towns, counties and the state to impart to the public that knowledge which it can best give. It must take a hand in the selection of proper men for public office. It must know candidates and it must know those who are nominated.

The medical profession must so organize. The experiences of this 1933 session have clearly and undisputably shown the necessity. There must be a central directing office and a full time director.

This is not new thought of this committee. Many doctors have come to the committee and made similar suggestions. All or nearly all who have participated in our political difficulties have expressed something which would be the same or equivalent to this plan.

In this session there were approximately one thousand proposals introduced and of this number nearly one-third were passed and reached the governor. Of all subjects introduced nearly one-fourth are of especial or of slight interest to the medical profession. We have grouped the following bills which are of especial interest and have shown the disposition of each.

MALPRACTICE BILLS

Senate Bill No. 24, introduced by Senator Ray Durhan, Iron Mountain, amending Workmen's Compensation Act to allow employee to claim compensation without losing the right to sue for damages. Direct threat against the medical profession. Passed Senate. Reported out by House Labor Committee. Re-referred to House Judiciary Committee. Died in Committee last day of session.

House Bill No. 216, introduced by Mr. Earl L. Burhans, Paw Paw, permitting judgments in tort to be used on and renewed, indefinitely. Died in House Judiciary Committee.

TAXATION BILLS

House Bill No. 184, introduced by Mr. Tracey W. Southworth, Monroe, providing for a three per cent tax on gross incomes of professional people, and also three per cent tax on all sales. Passed House. Amended in Senate to eliminate income tax. Passed Legislature as a straight sales tax. Approved by Governor. (Enrolled Act. No. 173, P. A. No. 167.)

Senate Bill No. 100, introduced by Senator Henry C. Glasner, Charlotte, providing for taxation of net incomes and trust fund incomes. Defeated in Senate.

Senate Bill No. 184, introduced by Senator Claude B. Root, Greenville, providing a gross income tax on persons and corporations. Died in Committee on Taxation.

Senate Bill No. 27, introduced by Senator A. L. Moore of Pontiac, permitting payment of 1928, 1929, 1930 and 1931 taxes in ten annual installments, and cancelling all overdue taxes prior to 1928. Passed Legislature and approved by the Governor. (Act. No. 126, P. A. of 1933).

HEALING ARTS BILLS

House Bill No. 474, introduced by Mr. John P. Connors, Detroit, permitting Osteopaths unlimited practice of medicine and surgery, with no distinction to be made between physi-

cians and surgeons, M.D., and osteopaths. Vetoed by the Governor June 21st.

Senate Bill No. 106, introduced by Senator James T. Upjohn, Kalamazoo, prescribing educational qualifications of persons who wish to study for practice of the healing art, and creating a Board of Examiners thereof. Died in Senate Committee on Public Health.

House Bill No. 398, introduced by Rep. John G. Rulison, Lansing, making necessary amendments in the Medical Practice Act. Passed the House. Died in Senate Public Health Committee.

House Bill No. 389, introduced by Mr. Laverne Hatch, Horton, providing for the appointment of a Board of Chiropractic Examiners and for the licensing of applicants. Approved by the Governor, June 21. (Enrolled Act No. 131, P. A. No. 145.)

House Bill No. 66, introduced by Messrs. Hartman and Brown to repeal the appropriation for the Homeopathic Medical Department of the U. of M. Approved by the Governor. (Enrolled Act No. 3, P. A. No. 5, I. E.)

House Bill No. 441, introduced by Mr. T. Thomas Thatcher, Ravenna, to regulate the practice of optometry. Died in House Committee on Public Health.

House Bill No. 457, introduced by Mr. John Dykstra, Muskegon, to amend the law relative to optometrists. Died in House Committee on Public Health.

Senate Bill No. 144, introduced by Sen. Henry C. Glasner, Charlotte, to create a department of registration of professions. Died in Senate State Affairs Committee.

Senate Bill No. 195, introduced by Messrs. Doyle and Asselin, regulates hours for nurses on duty in hospital. Not passed by House.

Senate Bill No. 140, introduced by Senator Charles B. Asselin, Bay City, to make it a misdemeanor for a city, county or state nurse to diagnose a case or prescribe treatment or use her position to promote any physician or particular school of healing. Tabled in Senate May 26.

House Bill No. 513, introduced by Mr. D. G. Look, Lowell, to require pharmacists to take examinations or graduate from recognized school. Passed and approved by Governor. (Enrolled Act No. 121, P. A. No. 141.)

House Bill No. 531, introduced by Messrs. McInerney and Thatcher to prevent issuance of pharmacy license to persons selling groceries to raise standards of applicants for license. Not passed by Senate.

House Bill No. 579, introduced by Mr. James G. Frey, Battle Creek, permits Chiropodists to treat ailments of human leg and foot medically, surgically, mechanically or by physiotherapy. Permits use of "Dr." if word chiropodist follows name. Not passed by Senate.

House Bill No. 170. New dental bill repealing old law. Provides for board of seven for seven year term; requires 30 hours preliminary college and 60 hours in dental school, annual registration and prohibits practicing or advertising under firm or trade name or of corporation or association. Passed legislature and approved by Governor. (Enrolled Act No. 183, P. A. No. 235.)

STATE CARE AND INDIGENTS

House Bill No. 16, introduced by Messrs. Hartman and Brown to abolish the Crippled Children's Commission and transfer its duties to the Superintendent of Public Instructions. Died in House Ways and Means Committee.

House Bill No. 173, introduced by Messrs. Hartman and Brown, giving more powers to the Crippled Children's Commission. Substituted on April 10 to include afflicted children. Died in House Committee on Ways and Means.

House Bill No. 171, introduced by Mr. Fred E. Watkins, Pontiac, allowing afflicted children to receive medical and surgical care in approved hospitals other than the University Hospital, but then at county expense, traveling expense partly borne by county, administration by Crippled Children's Commission. Provides that a fee scheduled for doctor be drawn. Approved by the Governor July 10. (Enrolled Act No. 210, P. A. No. 248. I. E.)

House Bill No. 354, introduced by Mr. M. Clyde Stout of Ionia, providing that expenses of conveying afflicted children to and from University Hospital shall be allowed by the Supervisors of the County from which such children were sent. Died in House Public Health Committee.

House Bill No. 409, introduced by Mr. Lester T. Barber, Edmore, providing that "legally qualified physicians" shall furnish the history on an afflicted child. Died in House Public Health Committee.

House Bill No. 410, introduced by Mr. Lester T. Barber, Edmore, providing that "legally qualified physicians" shall furnish the history on an afflicted adult. Died in House Public Health Committee.

House Bill No. 404, introduced by Mr. Vernon J. Brown, Mason, reducing the fee for medical examinations of afflicted adults from $5.00 to $3.00. Passed House. Killed in Senate by indefinite postponement.

House Bill No. 319, introduced by Rep. Charles M. Myers, Dowagiac, providing that the family physician be the examining physician of afflicted adults. Died in the House Public Health Committee.

House Bill No. 583, introduced by Mr. J. C. Coumans, Bay City, providing that other than the University Hospital, and other physicians than those of the University Hospital be utilized for the care and treatment of afflicted adults. Approved by the Governor July 6. (Enrolled Act No. 182, P. A. No. 222.)

House Bill No. 616, introduced by Mr. Edward J. Walsh of Detroit, providing that Judges of Probate may order afflicted adults sent to city or county hospitals. Died in House Public Health Committee.

House Bill No. 318, introduced by Rep. Charles M. Myers, Dowagiac, providing that the family physician be one of the two examining physicians in insane and feeble minded cases. Died in House Public Health Committee.

House Bill No. 405, introduced by Mr. Vernon J. Brown, Mason, changing the fee for medical examination of insane persons from "five dollars" to "not less than three dollars," except in counties with population over 250,000. Approved by the Governor. (Enrolled Act No. 75, P. A. No. 85.)

Senate Bill No. 138, introduced by Senator W. F. Doyle, Menominee, providing that epileptic and feeble minded persons may be committed to private homes until provisions in proper state institution is made, the state reimbursing the county for cost of maintenance. Passed Senate. Died in House Committee on Towns and Counties.

House Bill No. 135, introduced by Mr. M. Clyde Stout, Ionia, limited the funeral expenses of deceased persons to $125.00 when there is not sufficient estate to cover all debts. Expenses of last illness must be paid second in order. Not passed.

House Bill No. 458, introduced by Mr. J. P. Connors, Detroit, to make an appropriation for Children's Fund of Michigan for research on dental caries. Killed in Home Committee of Ways and Means.

Senate Bill No. 213, introduced by Senator James T. Upjohn, Kalamazoo, to provide for sterilization of feeble-minded, insane persons, moral degenerates and sexual perverts. Died in Senate Committee on Public Health.

WORKMEN'S COMPENSATION

House Bill No. 153, introduced by Mr. Joseph C. Roosevelt, Detroit. When employee wins appeal from decision of Board, he can charge employer or insurer for his attorney and physician's fees. Died in House Committee on Labor.

House Bill No. 276, introduced by Rep. H. E. Perry, Newberry, reduces compensation from $18.00 to $12.00 with minimum from $7.00 to $6.00. Not passed.

House Bill No. 402, introduced by Mr. H. L. Nichols, Jackson, changes method of computing average weekly wages from "six times" daily wage to the "daily wage multiplied by the number of days per week employee is then actually working." Died in Committee on Labor.

Senate Bill No. 147, introduced by Mr. James A. Murphy, Detroit, prescribes provisions to cover disability or death due to occupational diseases according to list of 16 causes. Died in Senate Committee on Labor.

Senate Bill No. 156, introduced by Mr. James A. Murphy, Detroit, prohibits attending physician to testify at hearings except by waiver of employee. Provides for re-hearings of final awards within 60 days. Defeated in Senate June 6.

House Bill No. 622, introduced by Mr. William C. Buckley, Detroit, proposes to increase medical care from 90 to 180 days. Not passed Senate.

OCCUPATIONAL DISEASE BILLS

House Bill No. 140, introduced by Mr. Wm. C. Birk at the request of Mr. Alvin L. Rummel of Ironwood, including any "disability" arising out of or in the course of employment from any disease or injury proximately caused by employment. Died in House Committee on Labor.

House Bill No. 214, introduced by Mr. Wm. G. Buckley of Detroit, including such occupational disease or infection as arises out of and is incidental to the employment. Died in House Committee on Labor.

Senate Bill No. 147, introduced by Senator James A. Murphy, Detroit, covering disability or death due to occupational diseases re-referred to Senate Committee on Labor.

OLD AGE PENSIONS

Senate Bill No. 2, introduced by Senator Ray Durhan, Iron Mountain, creating an Old Age Pension. Died in Senate Committee on State Affairs.

House Bill No. 100, introduced by Mr. Michael J. Grajewski, Jr., of Detroit, providing for Old Age Pensions payable by the state. Approved by the Governor July 7. (Enrolled Act No. 175, P. A. No. 237.)

House Bill No. 163, introduced by Messrs. Cameron and Jewell, providing for Old Age Pensions. Died in House Committee on State Affairs.

House Bill No. 521, introduced by Mr. Wm. G. Buckley, providing for Old Age Pensions. Died in House Committee on State Affairs.

House Bill No. 599, introduced by Mr. George L. Teachout of Flint, providing for Old Age Pensions. Died in House Committee on State Affairs.

House Bill No. 638, introduced by Mr. Jos. S. Brzostowski of Detroit, providing for Old Age Pensions. Died in House Committee on State Affairs.

UNEMPLOYMENT INSURANCE

Senate Bill No. 167, introduced by Senator Leo G. Karwick of Hamtramck, establishing unemployment insurance and commission to regulate same. Died in Senate Committee on Judiciaries.

House Bill No. 502, introduced by Mr. Wm. C. Buckley,

providing unemployment insurance payable by state. Died in House Committee on Labor.

LIQUOR

House Bill No. 277, introduced by Mr. Joseph C. Murphy. Amends prohibition law to permit physician or dentist to prescribe amounts of liquor equal to that allowed by any act of congress. Died in House Committee on Liquor Traffic.

House Bill No. 300, introduced by Mr. Willis E. Cuthbertson, Flint. Repeals state prohibition law. Died in House Committee on Liquor Traffic.

House Bill No. 200, introduced by Mr. E. G. Nagel, Detroit. Raises amount of liquor prescribable by physicians and dentists from 8 to 16 ounces pending repeal of 18th amendment. Passed and approved by Governor. (Enrolled Act No. 141, P. A. No. 150.)

House Bill No. 557, introduced by Mr. John Dykstra. Muskegon. To repeal law permitting physicians to prescribe liquor to patients. Died in House Committee on Liquor Traffic.

Senate Bill No. 204, introduced by Senator A. J. Wilkowski, Detroit, removing restrictions on prescribing liquor for medical purposes to conform with Federal Law. Died in Senate Committee on Prohibition.

Senate Bill No. 242, introduced by Senator Ray C. Derhan, Iron Mountain, to change prescribable alcoholic dosage from 8 ounces to "amount necessary for patient's medical needs." Referred to Senate Committee on Prohibition.

VITAL STATISTICS

House Bill No. 304, introduced by Mr. H. L. Nichols, Jackson. Birth or death certificates are prima facie evidence of facts contained therein. Not passed.

House Bill No. 343, introduced by Messrs. Morley and Myers. Repeals five-day requirement for license to marry. Not passed.

Senate Bill No. 160, introduced by Senator John W. Ried, Highland Park. Legalizing pre-marital births and recording same on birth certificates. Passed and approved by Governor. (Enrolled Act No. 51, P. A. No. 172.)

House Bill No. 178, introduced by Rep. E. F. Fisher, Dearborn, The birth certificates of a legally adopted child shall bear the names of the new parents and shall not disclose illegitimacy. Passed and approved by the Governor. (Enrolled Act No. 98, P. A. No. 105.)

CARE OF THE TUBERCULOUS

Senate Bill No. 42, introduced by Senator Leon D. Case, Watervliet, reduces compensation paid to counties by the State for treatment and care of indigent tuberculous patients from one dollar to seventy-five cents per diem. Passed and approved by the Governor July 6. (Enrolled Act No. 74, P. A. 215.)

Senate Bill No. 44, introduced by Senator Leon D. Case, Watervliet, provides for appropriation of $1,600,000.00 from the general fund of the State for partial payment of state liability for expense in care and treatment of indigent tuberculous patients in Tuberculosis Sanitariums. Passed and approved by the Governor March 11. (P. A. No. 27.)

Senate Bill No. 84, introduced by Senator C. A. Campbell, Indian River, amends malt tax law to require chain store organizations to have license for each store to sell malt products. Passed and approved by Governor. (Enrolled Act No. 54, P. A. 175.)

Senate Bill No. 99, introduced by Senator Ray Derhan, Iron Mountain. New malt tax and to replace malt tax law of 1931. Passed but vetoed by Governor.

House Bill No. 35, introduced by Messrs. Hartman and Brown. Disposition of malt tax moneys. Passed and approved by Governor. (Enrolled Act No. 140, P. A. No. 157.)

House Bill No. 106, introduced by Mr. James W. Helme, Adrian. Repeals provision for construction and maintenance of Northern Michigan Tuberculosis Sanitarium. Died in House Committee on State Affairs.

House Bill No. 110, introduced by Mr. William C. Birk, Baraga. Repeals malt tax law 1931. Died in Committee on Public Health.

House Bill No. 435, introduced by Mr. M. Clyde Stout, Ionia. To make appropriations for Michigan State Sanitarium. Passed and approved by Governor. (Enrolled Act No. 128, P. A. No. 106.)

House Bill No. 469, introduced by Mr. H. L. Nichols, Jackson, to amend malt tax law reducing registration fee from $25.00 to $10.00 and requiring each store separate registration "even though the same may be a unit of a corporation or holding company." Not passed by Senate.

MISCELLANEOUS

House Bill No. 191, introduced by Messrs. Hartman and Brown. Psychopathic Hospital, Ann Arbor, to be administered by Board of Regents instead of present board of trustees. Not passed.

House Bill No. 265, introduced by Mr. D. D. Tibbits, Charlevoix, declares ragweed and goldenrod among noxious weeds to be cut down, pulled out and destroyed by land owner. Died in House Committee on Agriculture.

House Bill No. 268, introduced by Mr. Earl L. Burhans, Paw Paw, provides that in counties of less than 50,000 population the two coroners shall be appointed for two year term by the State Health Commissioner. Not passed.

House Bill No. 509, introduced by Mr. M. Clyde Stout, Ionia, Appropriations for various State boards. Passed and approved by Governor. (Enrolled Act No. 150, P. A. No. 188.)

House Bill No. 511, introduced by Mr. M. J. Grajewski, Jr., Detroit, authorizing autopsies on unclaimed dead bodies. Not passed by Senate.

House Bill No. 606, introduced by Messrs. Bischoff and Baginski, to prohibit compulsory life, health or accident insurance of employee. Died in House Committee on Labor.

House Bill No. 656, introduced by Rep. John G. Rulison, Lansing, proposes to accord hospitals to treat persons injured through faults of others, liens on all judgments, claims, etc., accruing to injured person by reason of the injury. Not passed in Senate.

House Bill No. 580, introduced by Mr. D. G. Look, Lowell. Eliminates provision to include in preparations containing habit forming drugs, other drugs to prevent use of preparation by addicts. Not passed by Senate.

House Bill No. 620, introduced by Messrs. Schneider and Buckley. "Uniform Narcotic Drug Act." Died in House Committee on Judiciary.

House Bill No. 283, introduced by Messrs. Connors and Kirkwood. Regulations of Barbers and Hair cutters. Passed and approved by Governor. (Enrolled Act No. 94, P. A. No. 106.)

The Committee acknowledges the valued aid of many county societies and of many individuals in the profession who were ready at all times to respond, to contribute and to participate. Many lay friends and politically powerful individuals contributed liberally of time and in a number of instances at financial cost to themselves to aid us in our interest and in the interest of the commonwealth. Representatives of large and important businesses became interested in some of our problems and aided immeasurably.

The Wayne County Medical Society arranged to have its Executive Secretary, Mr. William J. Burns, present in Lansing during legislative days. Known to all as Bill Burns, the able and affable executive secretary labored effectively day and night on the problems confronting the medical profession.

Respectfully submited,

CARL F. MOLL
WM. C. MCCUTCHEON
GROVER C. PENBERTHY
WM. A. HYLAND
EARL I. CARR, *Chairman*

August 9, 1933.

CIVIC AND INDUSTRIAL RELATIONS COMMITTEE

The chief activity of the Civic and Industrial Relations Committee this year has consisted of drafting a Professional Lien Law.

Conforming to the Committee's recommendation of last year and the request of the Executive Committee of the Council, the chairman made a study of the indications for a Professional Lien Law in Michigan that would cover the needs of physicians, dentists, nurses and hospitals. With the advice and assistance of the Bureau of Legislation of the American Medical Association, a proposed bill was prepared.

The chairman of the Civic and Industrial Relations Committee met with the Legislative Committee in Lansing on March 1, 1933. and the proposed bill was discussed. It was agreed that the bill in its final form should be submitted to the Legislative Committee for introduction through the proper channels into the State Legislature. Unfortunately, conditions arose that made it inadvisable to introduce the bill because of the effect that it would have upon other pending medical legislation. An effort was made on the part of another group to introduce a similar bill, but one not including the medical profession, nurses or dentists. Fortunately, this bill died in committee and did not come before the Legislature.

Your Committee is optimistic and believes that

there is need for a Professional Lien Law in Michigan and recommends that such a bill be introduced into the Legislature at a later session.

Respectfully submitted,
Harrison S. Collisi, M.D., *Chairman.*

RADIO COMMITTEE

The Michigan State Medical Society.
Gentlemen:

Under instructions of the House of Delegates, the State Secretary is directed to secure and publish in the Journal, before each annual meeting, the annual reports of the Society's standing committees. Accordingly, as chairman of the Radio Committee, I submit the following report.

The report is made up of the various reports of County Societies who were doing radio broadcasting. It was thought in this manner the Council, House of Delegates and members of the Society could more easily evaluate the work.

Sincerely yours,
William J. Stapleton, Jr., M.D.,
Chairman.

KENT COUNTY

Dr. William J. Stapleton,
Detroit, Michigan.
Dear Doctor Stapleton:

We have done no broadcasting this year. It was brought to our attention that the State Society was broadcasting, and with the work the American Association is doing, our committee felt that we should keep off the air.

Sincerely yours,
George L. Bond, M.D.

BERRIEN COUNTY

My dear Doctor Stapleton:

We have not been broadcasting for the past year for the reason that our local station, WEMC, of Berrien Springs has been discontinued.

I understand that it was sold to a Kalamazoo syndicate and have never heard it on the air since, so do not know whether it is in existence or not.

There are no other broadcasting stations in our county so we have of necessity had to drop such work.

Sincerely,
W. C. Ellet, M.D.

BAY COUNTY

Dear Dr. Stapleton:

Fifteen of our members presented 25 broadcasts over WBCM from October 1, 1932, to March 21, 1933. On the latter date, we were forced to give up our time when the local station went off the Columbia chain.

The announcer gave the following introduction to all our broadcasts:

"You will now hear a health talk, sponsored by the Bay County Medical Society and given by one of its members, Dr. ....."

In closing he said, "You have just listened to a health talk, sponsored by the Bay County Medical Society and given by Dr. ....."

The following list gives the names of our members and the number of times they broadcasted:

Dr. L. F. Foster	3	Dr. D. Mosier	1
Dr. W. R. Ballard	1	Dr. Jos. Grosjean	2
Dr. R. H. Criswell	2	Dr. H. Lawrence	2
Dr. R. C. Perkins	2	Dr. E. S. Huckins	1
Dr. A. L. Ziliak	3	Dr. E. C. Miller	1
Dr. A. D. Allen	1	Dr. C. A. Groomes	1
Dr. N. R. Moore	2	Dr. J. McLean	1
Dr. George Brown	2		

Fraternally yours,
L. Fernald Foster, M.D.

JACKSON COUNTY

Dear Dr. Stapleton:

As you requested, I am mailing you a list of the radio talks which have been sponsored by the Jackson Medical Society since my last report.

We broadcast each Tuesday morning over our local station WIBM for a fifteen minute period begining at 10:45. We have never announced the name of the speaker merely stating that a member of the Jackson County Medical Society would speak, and announce the subject.

I gave a rather detailed report of our experiences with radio broadcasting at the annual Conference of the County Secretaries held in Grand Rapids last March. This report was published in the State Journal and I believe you will find it will answer any questions you may have in regard to our local work.

Yours truly,
R. H. Alter, M.D.

(Your chairman recommends a reading of Dr. Alter's articles to all who are interested in radio as effects the medical profession.)

RADIO PROGRAMS BY JACKSON MEDICAL SOCIETY

Oct. 25	Vincent's Infection. Dr. Cochrane.
Nov. 1	What to do When a Bone is Broken. Dr. C. Corley.
Nov. 8	The Reason for Periodic Health Examinations. Dr. Enders.
Nov. 15	Care of Normal Skin. Dr. Crowley.
Nov. 22	A Doctor Looks at Cleanliness and Health. Dr. Hardie.
Nov. 29	Hernia. Dr. Harris.
Dec. 6	Holding the Line. Dr. Hanna.
Dec. 13	Communicable Disease in the Home. Dr. Hurley
Dec. 20	Obesity Due to Glandular Disturbance. Dr. Jones
Dec. 27	A Change of Climate. Dr. Kunder.
Jan. 3	Radium Fakes. Dr. Kugler.
Jan. 10	That Tired Feeling. Dr. Lake.
Jan. 17	Rheumatism. Dr. Thayer.
Jan. 24	Heart. Dr. Lewis.
Jan. 31	Influenza. Dr. Leonard.
Feb. 7	Ear and Its Diseases. Dr. McGarvey.
Feb. 14	Goiter. Dr. Ludwick.
Feb. 21	Pneumonia. Dr. Meads.
Feb. 28	Uses and Abuses of Cathartics. Dr. Newton.
Mar. 7	Cancer and Women's Clubs. Dr. O'Meara.
Mar. 14	Prenatal Care. Dr. Peterson.
Mar. 21	Electrical Hazards in the Home. Dr. F. E. Pray
Mar. 28	Contagious Disease of Childhood. Dr. G. R. Pray
Apr. 4	Vermiform Appendix. Dr. Ransom.
Apr. 11	Headaches. Dr. Riley.
Apr. 18	Posture. Dr. Schmidt.
Apr. 25	Facts and Figures. Dr. Schaeffer.
May 2	Epidemic Influenza. Dr. E. C. Taylor.
May 9	Dialogue on Tuberculosis. Dr. VanSchoick.
May 16	Unwashed Hands. Dr. Chabut.

INGHAM COUNTY

Dear Doctor:

The Medical Society of Ingham County participated in the Health Education Program of the Michigan State Medical Society by giving a series of talks over radio station WKAR, Michigan State College, East Lansing.

There were eighteen talks given from January 12, 1933, to May 25, 1933, inclusive. Due to spring vacation at the Medical State College, there was no talk on March 30. On April 20 the Medical Society of Ingham County gave an afternoon clinic and the talk was not given on that afternoon, as all doctors wished to attend the clinic.

The following are the names of the doctors giving talks, title of subject, and date on which talks were given:

Jan. 12	Contagious Diseases. Dr. Russell Finch.
Jan. 19	The Periodic Health Examination. Dr. L. C. Towne.
Jan. 26	The Children are Cross. Dr. L. C. Hart.
Feb. 2	To Keep Our Eyes Well. Dr. M. C. Loree.
Feb. 9	Proper Prenatal Care. Dr. H. W. Wiley.
Feb. 16	Hay Fever. Dr. R. E. Goldner.
Feb. 23	Asthma. Dr. T. P. Vander Zalm.
Mar. 2	Diabetes. Dr. T. I. Bauer.
Mar. 9	Nervousness. Dr. C. W. Bradford.
Mar. 16	Animal Parasites in Man. Dr. L. C. Ludlum.
Mar. 23	Hygiene of the Skin. Dr. W. J. Cameron.
Apr. 6	Headache. Dr. R. A. Alton.
Apr. 13	The X-ray in Medicine. Dr. C. S. Davenport.
Apr. 27	Infections of the Nose and Throat. Dr. J. K. Heckert.
May 4	Dietary Fads and Fancies. Dr. Robert Phillips.
May 11	The Hospital; Today and Tomorrow. Dr. O. H. Bruegal.
May 18	Have You a Family Doctor? Dr. R. Kalmhach.
May 28	Early Signs and Recognition of Cancer. Dr. L. H. Darling.

These talks were put on as part of the educational program of the Michigan State College and were broadcast over their radio station, WKAR, every Thursday afternoon from 2:10 to 2:20.

There was some response to the programs by the listeners, but not as great as in previous years. The program director of station WKAR says that this is probably due to the fact that people do not write in to the radio stations now as they used to do.

The members of the Society coöperated splendidly when called upon to give the talks.

It is to be regretted that a more satisfactory hour can not be obtained when more people can be reached by these programs. I believe that if a time during the noon hour could be obtained that a much better response would be had and more people would hear the programs.

All in all, I believe the program for the year 1933 was successful.

At Station WKAR, Michigan State College, the doctor presenting the talks is announced by name. It is the policy of this station that all speakers' names are announced.

In Jackson the doctors' names are not announced, because the station management interprets it as individual advertising.

The speaker is announced as a member of the Jackson County Medical Society.

R. J. HIMMELBERGER, M.D.,
Ingham County Chairman
MILTON SHAW, M.D.,
District Chairman
J. EARL MCINTYRE, M.D.,
Councilor, Second District,
Michigan State Medical Society.

Dr. Fred Cole is chairman of the Radio Division of the Public Education Committee of the Wayne County Medical Society and I submit his report in full as showing the work done by the members of the Wayne County Medical Society in Detroit and Wayne County.

WAYNE COUNTY

Dear Dr. Stapleton:

I wish to summarize for you what has been accomplished by the Radio Section of the Public Education Committee.

The first talk over WWJ was given October 1, 1931. Since that time there has been sixty-nine Wayne County broadcasts upon a variety of subjects, most of which have to do with medical problems of general interest. The first talk over CKOK was given January 7, 1933, and there has been nineteen since that time. I have not given you the titles of these talks because of the fact that the secretary of Wayne County has the subjects on file and most all of the talks have been filed away in case we wish to have them repeated or given out to other county societies if requested.

This committee has tried to do two things; first, distribute the talks over the whole Society and to have them of general interest. We have several times through the BULLETIN called the Society's attention to the fact that any one interested would be given an opportunity to speak, also emphasizing the fact that the talk was the important thing and not the speaker. I personally feel that it would be a great backward step to do away with our radio program, especially as it is free, is educational for the public, and keeps the Wayne County Medical Society in the foreground as the important medical unit.

Sincerely yours,
FRED H. COLE,
Chairman of the Radio Section.

Dear Dr. Stapleton:

As Chairman of the Radio Section I am making you the following report. On WWJ and CKLW we have had the following talks:

Station WWJ—1931

Oct. 19 Common Colds. Dr. John Watkins.
Oct. 26 Physical Culture Fads. Dr. F. C. Musser.
Nov. 2 The Eye. Dr. Ralph Pino.
Nov. 9 Reducing Fads. Dr. C. J. Marinus.
Nov. 16 Urology. Dr. Wm. Keane.
Nov. 23 Are We All a Little Crazy? Dr. Dave Clark.
Nov. 30 Skin. Dr. R. Wollenberg.
Dec. 7 The Ear. Dr. W. Warren.
Dec. 21 Diphtheria. Dr. Franklin Top.
Dec. 28 Constipation. Dr. Stewart Wilson.

1932

Jan. 19 Truth and Fiction About Blood Pressure. Dr. Hugo Freund.
Jan. 26 Why a Medical Society? Mr. Wm. J. Burns.
Feb. 9 Heart Burden and Heart Consciousness. Dr. A. S. DeWitt.
Feb. 16 Relation of the Hospital to the Community. Dr. Stewart Hamilton.
Feb. 23 The Question of Indoor Climate in Relation to Respiratory Diseases. Dr. Lee Simpson.
Mar. 22 T. B. Week.
Apr. 5 T. B. Week.
Apr. 19 Nervousness: Everyday Problems. Dr. Martin Hoffman.
May 3 Our Daily Question Box. Mr. Wm. J. Burns.
May 17 Indigestion. Dr. Douglas Donald.
June 14 Growth and Care of the Baby. Dr. Milo Brady.
June 21 Romance of Anesthesia. Dr. Wm. Fowler.
June 28 Pseudo-medical Superstition. Dr. Dan Foster.
July 12 The Periodic Health Examination. Dr. L. O. Geib.
July 19 The Summer Camp for Diabetic Children. Dr. Franklin Peck.
July 26 What Everyone Should Know About the Eyes. Dr. Ben Glowacki.
Aug. 2 What Everyone Should Know About Appendicitis. Dr. Claire Vale.
Aug. 16 Obesity. Dr. Wm. Stapleton.
Aug. 23 The Significance of Pain in the Abdomen. Dr. H. W. Yates.
Aug. 30 Periodic Health Examination. Dr. Bruce Lockwood.
Sept. 6 Sleep. Dr. Clyde Chase.
Sept. 13 What the Laymen Should Know About Cancer. Dr. A. W. Blain.
Sept. 27 The Deafened. Dr. Emil Amberg.
Oct. 4 How Can I Know I Have Ear Disease? Dr. Walter J. Wilson.
Oct. 11 Facts and Fiction Concerning Appendicitis. Dr. Wm. J. Cassidy.
Oct. 18 How We Hear and How to Keep Our Hearing. Dr. Howard Pierce.
Oct. 25 Modern Surgery. Dr. W. A. Chipman.
Nov. 1 Facial Plastic Surgery: Its Possibilities and Its Dangers. Dr. Claire Straith.
Nov. 8 Varicose Veins. Dr. Miln C. Harvey.
Nov. 15 Childhood Fever. Dr. H. C. Walser.
Nov. 22 Some Facts About Moles. Dr. J. A. Hookey.
Nov. 29 The Vitamins. Dr. L. L. Newfield.
Dec. 6 Superfluous Hair and What to Do About It. Dr. Claude Behn.
Dec. 13 Recurrent Coughs in Children. Dr. H. S. Berman.
Dec. 20 Facts Concerning the Nose. Dr. Ray W. Hughes.
Dec. 27 Liver Disease. Dr. S. G. Meyers.

1933

Jan. 3 What Everyone Should Know About Cancerous Skin Changes. Dr. C. K. Hasley.
Jan. 10 Rheumatism. Dr. J. L. Chester.
Jan. 17 Foreign Bodies in the Air and Food Passages. Dr. W. A. Hudson.
Jan. 24 Eczema in Infants. Dr. W. C. C. Cole.
Jan. 31 Common Causes of Anemia. Dr. P. L. Ledwidge.
Feb. 7 Relation of Overweight to Disease. Dr. S. S. Altshuler.
Feb. 14 Dietary Facts and Fads. Dr. Frederick Sperry.
Feb. 21 The Heart and How It Works. Dr. E. D. Spalding
Feb. 28 Blood Tests. Dr. Edward Robbins.
Mar. 7 Chronic Fatigue. Dr. H. V. Dwyer.
Mar. 14 Tuberculosis. Dr. Richard H. Morgan.
Mar. 21 Pimples (Acne)—Causes and Treatments. Dr. Loren W. Shaffer.
Mar. 28 Keeping Fit. Dr. A. R. Hackett.
Apr. 11 What to do Before the Doctor Arrives. Dr. Earl Lutz.
Apr. 18 The Art of Medicine. Dr. Wm. Woodworth.
Apr. 25 Having a Baby. Dr. Harry Kirschbaum.
May 2 New Methods in the Diagnosis of Tuberculosis. Dr. Bruce Lockwood.
May 9 Summer Camps in Tuberculosis Prevention. Dr Burt Shurley.
May 16 Where Is the Other Case? Dr. A. M. Wehenkel
May 23 Do Young Children Have Tuberculosis? Dr. J. R Rupp.
May 30 The Hazard of Carbon Monoxide. Dr. Carl Schulte.

Station CKLW—1933

Jan. 7 Helping Public Health. Dr. Wm. Stapleton.
Jan. 14 Ringworm. Dr. R. C. Jamieson.
Jan. 21 Colds and the Modern Building. Dr. H. Lee Simpson.
Jan. 28 Present Status of Diabetes. Dr. Frank S. Perkin.
Feb. 4 Facts Concerning Goiter. Dr. R. W. Parr.
Feb. 11 Modern Obstetrics. Dr. L. E. Daniels.
Feb. 18 Practical Infant Care. Dr. Harold Clark.
Feb. 25 Hospital Cost and Care. Dr. E. T. Olsen.
Mar. 4 Earache and Running Ears. Dr. Neil Bentley.
Mar. 11 Simple Questions and Answers about Cancer. Dr Harry Saltzstein.
Mar. 18 Ulcer of the Stomach. Dr. Edward Dowdle.
Mar. 25 Facts and Fancies on Heart Pains. Dr. Robert Berman.
Apr. 1 Acute Appendicitis. Dr. Louis Hromadko.
Apr. 8 Proper Care of Your Eyes. Dr. Leo. J. Croll.
Apr. 22 More About the Importance and Significance of the Periodic Health Examination. Dr. Harold W. Carlson.
Apr. 29 The Tuberculosis Case Finding Program. Dr. Howard Pierce.
May 6 Do Young Children Have Tuberculosis? Dr. W. C. C. Cole.
May 13 New Methods in the Diagnosis of Tuberculosis. Dr. E. S. Bullock.
May 20 Importance of X-ray in the Diagnosis of Tuberculosis. Dr. E. R. Witwer.
May 27 Eyesight as a Factor in the Mental and Physical Development of the Child. Dr. Arthur P. Wilkinson.

I want to take this opportunity to tell you that these radio stations have coöperated with us in every possible way. I feel that the Wayne County Medical Society has been fortunate to have this radio time given them. I am sure that we all realize that with few exceptions the members of the Wayne County Medical Society who have spoken over these stations have coöperated with our committee in having their talks properly prepared and of general interest.

I recently received a call from WZYX, who desire that we give them a period. Whether we will be able to carry three stations or not is a matter for the Committee to decide.

I am of the opinion that this method of educating the public along the same medical lines should be continued. The American Medical Society and different county societies in other large cities are doing this work and find it of value to the public and also to the society.

Sincerely yours,
FRED H. COLE,
Chairman of the Radio Section.

DETROIT

The Detroit Dairy and Food Council gave a series of twelve radio talks over Station WWJ under the title, "The Town Crier." The speakers were Dr. Henry Vaughn, Health

Commissioner; Dr. Archibold C. Thompson, Detroit District Dental Society, and Dr. William J. Stapleton, Jr., of the Wayne County Medical Society. Estimated weekly audiences were 250,000.

Dr. H. Vaughn:
Is Health Important?
Small Food Allowance.
Building Health Reserve.
Work of the Health Department.

Dr. A. C. Thompson:
Grown Children's Teeth.
Diet for Children's Teeth.
"Crooked Teeth" and their Treatment.
Pyorrhea.

Dr. Wm. J. Stapleton, Jr.:
The Control of One's Diet.
Your Lunch.
Preserving the Characteristics of Youth.
How Food Eccentricities Effect Your Popularity With Your Family.

RADIO BROADCASTING

"Principles Governing Contact of Physicians with the Public through the Press, Lecture Platform, Lay Periodicals and Radio." This is the title of a pamphlet prepared by the New York Academy of New York.

"The present tendencies in social and economic life have made it desirable that the medical profession, both as an aggregate body and through its individual members, should become more articulate in its relation to the public."

"Public Health Education differs from publicity and propaganda by the nature of its content." A statement, for example, that measles is a much neglected and dangerous disease made by Dr. Jones may serve as a typical example of a public health education message.

"Such a statement should not give special prominence to its maker. On the other hand, the statement is given impressiveness and authoritativeness when emanating from a representative physician or from an official medical body. Such a physician speaks not for himself but for the profession; he serves merely as a mouthpiece which expresses a fact universally agreed upon by physicians."

Radio broadcasting presents a number of singular problems which need individual consideration—"Anonymity in the radio is, therefore, incongruous. A physician making an address on the radio must, of necessity, be introduced by name. More than that, to establish his right to speak, his standing or connections, educational or associational, must be given. Any of those requirements can be fulfilled without violence to good taste or ethical proceudre."

The above is of interest because of the objections raised by some doctors against the use of names in radio talks. Your chairman has been in touch with the American Medical Association and various other state societies. In Illinois, where, I am informed, over five hundred radio talks were given last year, the doctor's name is always used. In Toledo, the policy is to use the doctor's name.

In Detroit we have always used the physician's name. I have personally talked with many and no one has ever had a patient come as a result of that particular talk. The American Medical Association sees no objection to the use of the doctor's name. They state it is a matter for the local society to decide. For those who are interested, we suggest sending to the New York Academy of Medicine, 2 East 103rd Street, New York City, for two pamphlets. One used as a heading for this note and the other entitled "On the Air," prepared by the Medical Information Bureau of the New York Academy of Medicine.

There is an interesting discussion entitled "Rating the Radio," by R. G. Leland, M.D., American Medical Association, March, 1931.

CONCLUSION

The thanks of the Society and the chairman are due to the various radio stations who made possible the work of this committee, to the committee members for their efforts in behalf of the Society, and, lastly, to the members who gave of themselves in preparing and delivering papers go a special thanks.

Respectfully submitted,
William J. Stapleton, Jr., Chairman
W. A. Manther
R. H. Alter.

COMMITTEE ON PREVENTIVE MEDICINE

The Committee on Preventive Medicine has held two meetings during the year; in Detroit in December, and in Lansing on July 12, 1933. A third meeting is to be held in Battle Creek in August.

At the meeting in Detroit Dr. H. F. Vaughan presented the Detroit Plan of Medical Participation in Public Health Work, and Dr. Prichard discussed the plan as operated by the W. H. Kellogg Fund. The plans were discussed by the different members of the committee from the standpoint of problems in their communities.

At a meeting in Lansing, July 12, Drs. Vaughan and Prichard were asked to present a paper on "Medical Participation in Public Health" before the Michigan State Medical Society at Grand Rapids. This paper is to be discussed by Dr. Holmes of Muskegon and Dr. F. B. Miner of Flint.

In discussing medical participation, it was recognized that some agency, either social or public, would of necessity have to be responsible for the operation of such a program. The ideal method would be to have County Health Units, but many difficulties are encountered in obtaining legislation to bring this about. In the meantime it is necessary to contact the State Department of Health, the University, and County Health Units operated under the various foundation; *i.e.*, Couzens, Kellogg, etc.

Members of this committee are making these contacts and will endeavor to work out a plan to present to the House of Delegates in September.

Respectfully submitted,
L. O. Geib, *Chairman.*

COMMITTEE ON "THE STUDY OF BIRTH CONTROL"

1. Contraception is an important medical aspect of vital importance to the American people.
2. Contraception should be under proper medical supervision and not under the control of the laity.
3. Contraception constitutes an important branch of preventive medicine today.
4. Contraceptive advice and treatment should be given by the family physician.
5. Physicians desiring to give contraceptive advice and treatment should be informed of the most modern and scientific methods, and the Committee suggests that when necessary, further arrangements for post graduate instruction be provided by our State Society.
6. The increase of criminal abortion, which may be conservatively estimated at two million a year in America, would be materially reduced if contraceptive measures were scientifically administered.
7. Contraception would minimize the number of therapeutic abortions in cases where pregnancy should never have occurred because of the presence of serious, organic maternal disease.
8. The committee is reliably informed that commercial exploitation is being conducted by lay persons not properly qualified to give contraceptive advice, and it believes that such exploitation constitutes a menace to posterity.
9. The medical profession, after a period of several years, in which contraception has been largely

under lay administration, should assert leadership in an organized way to control this problem.

10. The committee is most strongly opposed to the giving of contraceptive advice and treatment without a very thorough analysis of the physical, mental, social, and economic status of the applicant, and it further believes that birth control should just as ardently encourage parenthood where it is indicated as it should endeavor to prevent where it is contra-indicated.

11. Your committee, after due investigation and consideration, recommends that the study of contraception should be indorsed by the medical profession of the State of Michigan, and it suggests that a permanent committee be appointed for further research and investigation.

Alexander M. Campbell, *Chairman.*

HOTELS

Ample hotel accommodations are available at the Pantlind, Rowe and Morton Hotels.

The Pantlind Hotel is just across the street from the Civic Auditorium. Its rates are: $3.00 to $5.00 single and $5.00 to $10.00 double.

The Rowe Hotel is two short blocks from the Civic Auditorium. Its rates are: $2.25 to $3.50 single with bath and $3.50 to $6.00 double with bath.

The Morton Hotel is four blocks from the Civic Auditorium. Its rates are from $2.50 up.

ENTERTAINMENT

The Kent County Medical Society will entertain the Officers, Delegates and Members at a "Rhine Party" in the Pantlind Hotel on Tuesday evening, Sept. 12, at 9:30 P. M.

Golf privileges for Blythefield Country Club may be obtained at the Registration Desk.

Parking privileges stickers can be secured at the Registration Desk.

COMMERCIAL AND SCIENTIFIC EXHIBITS

In a most spacious, well lighted and modernly equipped exhibit hall in the new auditorium will be found a splendid commercial and scientific exhibit.

Members are urged to arrange to visit these exhibits. It will be profitable to do so.

COMMERCIAL EXHIBITS

Mead Johnson Company.
Holland Rantos Co.
Gerber's Infant Foods.
Curdolac.
Kuhlman's Surgical Supplies.
Horlick's Malted Milk.
DePuy Mfg. Co.
Professional Underwriters.
Medical Arts Pharmacy.
DeVilbis Co.
G. A. Ingram Co., Surgical Supplies.
Abbott Laboratories.
Medical Protective Co.
H. G. Fisher Co.

SCIENTIFIC EXHIBITS

Dr. German has through his diligence secured an exceptional list of scientific exhibits. They contribute much to the scientific interest of the meeting. Do not fail to see them.

Drs. Lawrence Reynolds and Frederick Schreiber, Detroit, "X-ray Studies of Brain Injuries."

Dr. Claire L. Straith, Detroit, "Plastic and Oral Surgery."

Drs. Ballin and Morse, Detroit, "Parathyroidism."

Dr. Henry L. Chadwick, Detroit, "Tuberculosis in Children."

Dr. F. P. Currier, Grand Rapids, "Movies—Filterable Virus Infections of Nervous System."

Grand Rapids Anti-Tuberculosis Society, "Statistical Data and Graphs."

Dr. G. G. Stonehouse, Grand Rapids, "Intravenous Urograms."

Dr. Leland M. McKinlay, Grand Rapids "Cystometric Bladder Studies."

Drs. Wm. A. and Lawrence Evans, Detroit, "Studies on Malignancy."

Dr. Fred J. Hodges, Ann Arbor, "Subject not announced."

Dr. Alden Williams, Grand Rapids, "Superficial and Borderline Malignancy."

Dr. Vernon Moore, Grand Rapids, "Subject not announced."

Grand Rapids Board of Health, Dr. Edwards, "Milk and Meat Inspection."

Dr. Jarre, Detroit, "Peristalsis of Renal Pelvis."

WOMAN'S AUXILIARY ENTERTAINMENT

September 12: Tuesday Evening

Reception—Mezzanine Floor, Pantlind Hotel.

September 13: Wednesday Morning

Visit to Furniture Exhibits.
Golf.

1:00 P. M. Luncheon at Blythfield Country Club.
Visit to Gardens.

7:45 P. M. General meeting.

September 14: Thursday Morning

Visit to local stores.

Local Committee:
Reception—Mrs. J. B. Whinery
Transportation—Mrs. Vernon Moore
Registration: Mrs. J. N. Holcomb

HOUSE OF DELEGATES

CREDENTIALS COMMITTEE

T. J. Carney, Alma, *Chairman*

L. T. Henderson, Detroit W. C. Ellet, Benton Harbor
H. M. Best, Lapeer L. W. Switzer, Ludington.

LOCAL COMMITTEES

General Chairman—V. M. Moore.

Assistant General Chairman—Don Cameron.

Hotel and Parking—E. W. Schnoor and G. L. Riley.

Monitors for Section Meetings—*Surgery,* O. H. Gillette and Torrance Reed; *Medicine,* Paul Ralph and Joe Whinery; *Eye, Ear, Nose and Throat,* Dewey Heetderks and Robert Laird; *Gynecology,* J. D. Miller and E. B. Andersen; *Pediatrics,* A. R. Nelson and A. M. Hill; *Dermatology,* Ruth Herrick and John Yonkman.

History—C. H. Johnston.

Local Entertainment and Clubs—Frank Doran, Chairman, David Hagerman, William Butler and R. H. Denham; Blythefield, Rowland Webb; Cascade, Arthur Moll; Highlands, William DuBois; Kent, W. A. Hyland.

Committee on Invited Guests: F. N. Smith, R. R. Smith, Alexander Campbell, L. J. Schermerhorn, G. H. Southwick, R. J. Hutchinson, John R. Rogers, V. M. Moore, J. C. Foshee, Rowland Webb, A. B. Smith, H. S. Collisi, John H. McRae, and W. A. Hyland.

SOCIETY ACTIVITY

OUR GENERAL MEETING

On Wednesday evening of each annual session our members and guests convene in a general meeting. At this time there is a general statement made as to the year's work, future plans and the enactments of the House of Delegates.

The retiring president delivers his annual address and imparts valuable recommendations based upon his experiences while in office. The president-elect is inducted into office and briefly outlines his presidential policies.

The retiring president also invites some distinguished person to address those assembled. This year Dr. E. H. Cary of Dallas, Texas, who has just completed his term as president of the American Medical Association, is to be the guest speaker. Dr. Cary will bring much that is sound and applicable.

These features are cited to urge larger attendance at this feature of our annual meeting. Every member should be present to greet and honor those who participate in the program. Plan to do so this year.

Save your orders and place them with the Commercial Exhibitors.

KENT COUNTY SOCIETY HEADQUARTERS

Following thirty years of organizational existence the Kent County Society secured its own headquarters. During the previous years its meetings had been held in various local rooms and at the hospitals. With an addition to be erected to the Medical Arts Building the society perceived an opportunity and arranged to lease desirable space in that new addition. Upon the completion of the building a House Committee was appointed to furnish the new quarters. This was done and the accompanying pictures impart the plain yet rich and comfortable furnishings.

CLUB ROOM—KENT COUNTY MEDICAL SOCIETY

The opening night a buffet supper was served and over 95 per cent of the members attended the House Warming. During the evening reports were rendered revealing that some $4,500 had been expended in providing the Society's permanent quarters. The question of payment was answered within an hour when the members underwrote the entire expense and cleaned up the debt—and this was in the early part of 1932!

Kent County members are proud of their club rooms. They invite any doctor to make it his headquarters when in the city. Here you can rest, read, telephone and often join

in a game of bridge. An attendant will be found in charge.

The reading room has a large number of reference texts and most of the current journals. Luncheon will be sent out for if you desire to eat. Without boasting these are credited as being the finest furnished club rooms in the state—Grand Rapids furniture, of course, and that's why!

READING ROOM—KENT COUNTY MEDICAL SOCIETY

RADIO BROADCASTING

Dr. Carl Moll, a Michigan delegate, introduced a resolution related to radio broadcasting which was passed by the House of Delegates of the A. M. A. at its Milwaukee meeting. After a suitable preamble the resolution concludes with:

"Resolved: That the Board of Trustees through the Bureau of Investigation and through such other national organizations as the Board may be able to enlist, initiate and pursue activities and efforts to terminate misleading and misrepresenting radio broadcasting that is related to medicinal remedies and preparations for the conservation and protection of the health interests of the public."

A timely resolution. It is hoped that the A. M. A. will promptly and aggressively initiate activity to comply with this resolution and exercise its influence to cause an early cessation of the medical "bally-hoo" that eminates from chains and many stations. One rarely tunes in on any program but what he hears a harangue about some patent preparation and its curative value for a group of ailments. Unwarranted claims and statements are made and the public is deceived by the advice given. Public health is being jeopardized.

It is time to call a halt. These medicine vendors, denied advertising in publications, have rushed to the radio station to advertise their questionable preparations. Broadcasting stations, eager for financial profits, allot time on their programs but apparently exercise no censorship. They seemingly are unconcerned and are interested only in collecting the time rate.

The American Medical Association, aided by certain magazines and newspapers exposed fraudulent magazine and newspaper medical advertisements. The columns of the press and of magazines were cleaned up. The same course should be pursued in cleaning up the advertising that is broadcast on the air by radio.

The A. M. A. cannot accomplish this alone. It requires the assistance of the public and the profession. Adverse sentiment must be aroused and evidenced. Chain and station managers must become aware of resentment and protest from thousands of listeners. Letters of criticism and objection should be sent to these managers by the thousands. Request your friends to send in their objections and write yourself. The air channels of radio must be cleared of

fraudulent, misleading medical statements and drug advertising that is detrimental to public health and welfare.

PHYSICIANS AND STATE SALES TAX

Persistent effort eventually secured the following statement from the Director of the State Tax Board:

Rule 29.—Persons engaged in the professions of and known as opticians and optometrists, physicians, dentists, architects, artists and veterinarians are deemed to be rendering services and not selling at retail. They are considered to render and receive compensation primarily for services, the receipts from which are not taxable. The sale to such persons of such tangible personal property as they may use or consume incidental to the rendering of such services are "sales at retail" the gross receipts from which are taxable.

"Where members of the professions enumerated above, sell tangible personal property to consumers for use apart and distinct from the rendering of a service, they are liable for tax on gross receipts from such sales."

A general interpretation of this rule (unofficial) would be that there is no tax on the fees you receive. If in addition to your fee you supply drugs or supplies and charge for them in addition to your fee, this latter amount would be subject to tax.

ANNUAL MEETING DETAILS

This issue contains the final and official program. Its features should induce the attendance of every member. Grand Rapids bids you come.

Delegates will find the annual reports of committees published in this issue. Familiarize yourself with their recommendations in order that you may record intelligent action.

Delegates will please note that the first session of the House of Delegates is on Monday, September 11, at 2:00 P. M. The Credentials Committee will convene at 1:00 p. m. to pass on your credentials. Every delegate, to be seated, must present credentials signed by the County Secretary.

Be sure to register. Registration Booth will be found in the Exhibit Hall in the Civic Auditorium.

Do not fail to visit the Commercial and Scientific Exhibits. You will find many exhibits of interest and profit. Commercial firms will deem it a favor if you call at their booths. They can help you solve some of your personal problems.

The General Session on Wednesday evening will provide a program of interesting, enlightening and helpful addresses. Plan to attend and invite your friends. Gain a true insight as to the future of medical practice and the responsible rôle of the physician.

The Kent County Medical Society is prepared to aid you so as to enable you to enjoy this annual meeting. Accept their cordial invitation to attend

DOCTORS CHARGE TOO MUCH

They certainly do, there is no doubt about it. We have observed the practice for many years and the charge cannot be refuted. There is no reason for it, any more than there is for lawyers, plumbers, architects or any trade. No just business reason can justify it. There is no sound basis for this practice unless it is the exceptional case. That doctors charge too much is frankly admitted.

In almost every other calling or business a charge for services means payment in thirty days. If a charge credit is extended it is for thirty days, sometimes sixty days, rarely ninety days. A cash payment is the preference, a charge is second and then only for a limited time and that time is printed on the statement that is sent. Why shouldn't doctors apply the same rule?

Yes, you will charge for your services but only for thirty or sixty days. Expect and ask for cash payment, charge as an accommodation but don't be guilty of charging too much or too often. Less charges and more cash payment and you will not be accused of charging too many of your accounts. Doctors charge too much because they fail to cause their patients to learn that they prefer cash payments.

MINUTES OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

July 26, 1933

1. The Executive Committee of the Council held its monthly meeting in Muskegon at the Muskegon Country Club at 6:00 P. M. with the following members present: Doctors Corbus, Cook, Boys, Bruce and Carstens. Also present were President Robb, President-elect Le Fevre, Editor Dempster, Councilor A. S. Brunk, J. B. Jackson and the Secretary.

2. The Secretary presented the financial report, imparting the financial status as of July 26.

3. The Secretary reported upon the arrangements for the annual meeting and the details relating thereto. These were approved.

Upon motion of Boys-Bruce it was decided that the Executive Committee would meet at 10:00 A. M. and the Council would convene at 11:00 A. M. on the morning of Monday, September 11, 1933, preliminary to the meeting of the House of Delegates at 2:00 P. M. that day.

4. The Secretary announced the appointments made by the Speaker of the House for the following committees:

Committee on Economics—W. H. Marshall, Bert U. Estabrook, F. A. Baker, L. G. Christian, C. S. Gorsline.

Committee on the Revision of the Constitution and By-Laws—L. G. Christian, D. P. Foster, W. I. Reveno, L. F. Foster, F. A. Reeder.

5. At the request of the Chairman, J. B. Jackson reported his activities as the Society's representative on the Crippled Children's Commission. He stated that the recent act of the Legislature provided for the care of the underprivileged child and that by the result of that law it was necessary to determine certain medical fees, including fees for satisfactory administration. That a conference had been called for August 14 and that a request was being made to the State Medical Society to appoint a committee to represent the State Society at this conference. After discussion upon motion made by Boys-Bruce, the chair was authorized to appoint a committee. The chair appointed the following committee: J. B. Jackson, Chairman, Kalamazoo; Burt Greene, Hillsdale; Clair L. Douglas, Detroit.

6. The Secretary presented a communication from Councilor Treynor relating to the organization of a corporation to provide health insurance. The communication was discussed and referred to the Committee on Medical Economics.

7. The Secretary informed the committee that he

had endeavored to secure information regarding legislative activities in connection with the statement presented by the Wayne County Medical Society. That he had received some replies but had not yet received a statement from the Legislative Committee. The Chairman moved that without full information the matter could not be considered and would be deferred until the September meeting of the Executive Committee.

8. The Secretary announced the annual conference of State Secretaries to be held in Chicago, September 22 and 23. Upon motion of Bruce-Carstens, the Chairman of the Council and the President of the Society were authorized to attend this conference.

9. The Secretary requested instructions as to whether or not the report of the Legislative Committee should be printed in the JOURNAL in accordance with the instructions of the House of Delegates that all committee reports be printed previous to the annual meeting. He stated that the report would undoubtedly contain much confidential information and questioned the advisability of journal publicity. After discussion, the Secretary was instructed to omit the Legislative Committee's report from the September JOURNAL and to request the Chairman of the Committee to make his report direct to the House of Delegates.

10. The Executive Committee approved the following order of business for the first session of the House of Delegates on September 11.

1. Organization of the House
2. Speaker's Address
3. President's Address
4. The report of the Council
5. Appointment of Reference Committees.
6. Report of the Committee on Medical Economics.

The House will then continue its regular order of business.

11. The Executive Committee and those present devoted considerable time to the discussion of the question that had been raised relative to the release of newspaper publicity at the special meeting in Lansing. After a full discussion it was moved by Boys, supported by Carstens, that the President appoint a committee of three to investigate and make its report to the President.

There being no further business, the Committee adjourned at 11:00 P. M.

F. C. WARNSHUIS, *Secretary.*

COUNTY SOCIETIES

NORTHERN MICHIGAN

The regular monthly meeting of the Northern Michigan Medical Society was held at the Hotel Perry, Petoskey, Thursday, August 10, with an attendance of twenty-two members and eight guests.

The meeting was one of the best ever held by the society in recent years and those who failed to attend missed an excellent program. The meeting was called to order by President Frank, who immediately turned it over to the members of the Program Committee.

Dr. B. J. Beuker, East Jordan, then introduced Dr. Peter Lashmet, Assistant Professor in the Department of Medicine of the University of Michigan. Dr. Lashmet spoke on "The Importance of Adequate Fluid Intake in Treatment of Diseases."

Dr. John Skow introduced the next speaker who was Dr. E. L. Compere, Assistant Professor in the Department of Surgery, University of Chicago. Dr. Compere spoke on the "Decalcification of the Skeleton in Hyperparathyroidism."

Report of the Public Relations Committee was heard.

Dr. James Stringham, Cheboygan, was appointed to the Program Committee.

It was moved and seconded that the September meeting be held on the first Thursday of the month due to the meeting of the State Society the following week. Motion carried.

E. J. BRENNER, *Secretary.*

UPPER PENINSULA MEDICAL MEETING

Some sixty-five members of the Upper Peninsula attended the thirty-sixth annual meeting as the guests of the profession of Escanaba on August 11 and 12. The scientific program was excellent and much credit must be given to Dr. Charles L. Brown of Ann Arbor for his splendid clinics and talks ably and instructively conducted.

SCIENTIFIC PROGRAM

"Demonstration of a Case of Combined Diabetes and Pulmonary Tuberculosis"—Charles L. Brown, M.D., Ann Arbor, Mich.

"Management of Lobar Pneumonia in Childhood"—M. Cooperstock, M.D., Marquette.

"Chronic Infection of the Prostate and Urethra"—Damon A. Brown, M.D., Madison, Wis.

"Traumatic Surgery"—H. S. Brown, M.D., Detroit.

"Spinal Anesthesia"—Frank A. Kelly, M.D., Detroit.

"Consideration of Digitalis, Diuretics and Diet"—Charles L. Brown, M.D., Ann Arbor.

BANQUET

Toastmaster—John J. Walch, M.D.

"The Doctor Forced into Politics"—Mr. William Burns, Detroit.

"Medical Economics Applied to Practice—F. C. Warnshuis, M.D., Grand Rapids.

"Backache"—N. R. Kretzschmar, M.D., Ann Arbor.

"Head Injuries" (Lantern Slides)—F. C. Warnshuis, M.D., Grand Rapids.

"Thyrogenic Heart Disease, Hyperthydroidism and Myxedema"—Charles L. Brown, M.D., Ann Arbor.

It is always a delight to gather with these Upper Peninsula doctors. They reflect a high appreciation of their responsibilities and are sincere in their endeavor to render efficient service. For hospitality they are unexcelled.

It would be remiss to omit mention of Dr. C. J. Ennis of the Soo. Dr. Ennis has always been active in his society, a former Councilor, and a genial soul. Though he will not admit the age, his four score and three years do not retard his activities and his voice was pleasant to listen to in the "wee hours" at the banquet where he was the last to leave.

Members present from other parts of the state were Drs. F. A. Kelly and L. J. Hirshman and Mr. Burns of Detroit. Drs. Curry and McGregor of Flint, Dr. C. C. Slemmons and Karl Brucker of Lansing and F. C. Warnshuis.

Officers elected were: President, John J. Walch, M.D., Escanaba; vice president, F. G. H. Maloney, M.D., Ironwood; secretary—the secretary of the Gogebic County Medical Society will act as secretary of the Upper Peninsula Society.

The 1934 meeting will be held in Ironwood.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

JACKSON COUNTY

The Jackson County Medical Auxiliary held the last meeting of the year on May 16. It was preceded by a luncheon at the Tea Pot. The president, Mrs. George Seybold, opened the meeting with a few words expressing her appreciation of the coöperation of the members and thanked them for their loyalty.

Reports were given by the secretary, Mrs. M. McLaughlin, and the treasurer, Mrs. E. H. Corley. Committee reports were made by the chairmen of the following committees:

Social Committee—Mrs. F. E. Hackett.

Legislative Committee—Mrs. E. S. Peterson.

Officers for the next year were elected as follows: Mrs. W. L. Finton, president; Mrs. G. C. Hicks, vice-president; Mrs. E. D. Crowley, secretary, and Mrs. H. L. Hurley, treasurer. Preceding the luncheon, Mrs. Seybold was presented with a lovely corsage by Mrs. Finton, who expressed the appreciation of the auxiliary for the successful year.

The tables were centered with bouquets of pink and yellow tulips. Bridge was played later.

INGHAM COUNTY

The Woman's Auxiliary of the Medical Society of Ingham County held its annual meeting in May at the home of Mrs. L. G. Christian. A one o'clock luncheon was served after which a short business meeting was held. Mrs. D. A. Galbraith was elected president and Mrs. George Bauch, secretary for the ensuing year.

Mr. William Burns spoke on the laws of vital interest to the medical profession, which were pending in the legislature. Dr. E. R. Vander Slice, head of the City Health Department, told of the ways in which the women of the Auxiliary might coöperate in helping to raise the general health conditions in the city.

The programs for the year have been interesting, the welfare work has been outstanding and the friendliness engendered in the society has been helpful to all.

MRS. CYRUS B. GARDNER,
Retiring President.

QUACKERY, CHARLATANISM AND CULTISM

(Howard W. Haggard, M.D., in *New York State Journal of Medicine*)

"Quackery, or charlatanism, or cultism, is always medicine out-of-date. All the cultism of today is the discarded medical practice of the past and most of it is so far in the past that it goes into the primitive or savage state. If we brought from some South Sea Island or from the forests of Africa a native medicine man and allowed him to practice according to his native rites in our more or less civilized midst—and I have no doubt that he would be allowed so to practice in many of our states, if his foster and more up-to-date brethren in the legitimate profession of medicine could retain their cherished and exclusive privilege of signing the death certificates for his patients—such a man, a savage medicine man, would differ not at all in principles of practise, only in form, from the various cults of charlatanism already supported in our midst, whether they be metaphysical healing, back slapping, foot twisting, or patent medicine. Charlatanism is as atavistic as war—its existence proclaims the fact that civilization is only a veneer. Scratch even the most cultured skin and you draw the blood of a savage. The charlatan does no actual physical good to his patients, yet many people of our public hold him in veneration, the veneration of personal prestige. Those who submit to his ministrations have a stronger emotional feeling for him than for the scientific but frankly less artful physician."

GENERAL NEWS AND ANNOUNCEMENTS

Dr. Henry D. Chadwick, who has been tuberculosis controller for the city of Detroit since 1929, was appointed Health Commissioner of the State of Massachusetts by Governor Joseph P. Ely. Dr. Chadwick will leave Detroit to assume his new duties by the first of October. He has been for many years a resident of Massachusetts, where he was in charge of the Westfield State Tuberculosis Sanitarium.

Dr. Reuben Peterson, professor emeritus of obstetrics and gynecology of the University of Michigan Medical School, has retired from active practice. Dr. Peterson was associated with the University of Michigan Medical School from 1901 to 1931, when he retired from the position of active professor. He was medical director of the University of Michigan Hospital from 1911 to 1918. Dr. Peterson was president of the Washtenaw County Medical Society in 1902 and president of the Michigan State Medical Society in 1915. At the Milwaukee session of the American Medical Association Dr. Peterson was made an honorary Fellow.

Dr. John L. Walsh of Escanaba is president of the Delta County Medical Society and not Dr. L. P. Groos, who was reported as president in this JOURNAL.

Dr. A. V. Forrester and Mrs. Forrester left Detroit on July 20 for two months' sojourn in Edinburgh and Glasgow, Scotland, where Dr. Forrester will pursue postgraduate work in internal medicine.

DR. EDWARD C. DAVIDSON

OBITUARY

Dr. Edward C. Davidson of Detroit died suddenly at his home, Grosse Pointe Park, on August 7, 1933. Dr. Davidson was born at Pittsburgh and was educated at Harvard University and Johns Hopkins, from which latter institution he received his medical degree in 1920. After seven years internship at Johns Hopkins Hospital he became a member of the staff of Henry Ford Hospital, Detroit. He left Ford Hospital in 1925 and went into private practice. Dr. Davidson devoted his attention to the study of changes in the physical organism which accompany severe burns whereby he discovered that the changes which in the graver cases produce death where due to absorption of the toxic substance formed at the site of the burn. He devised a new treatment which has proved successful. Dr. Davidson was a member of the Wayne County and Michigan State Medical Societies and American Medical Association. He was also a Fellow of the American College of Surgeons. He is survived by his wife, Alice, and two sons, Drew and James.

DR. CHARTERS' MATERNITY HOSPITAL—A PRIVATE HOSPITAL and HOME where unfortunate young women receive the best of care and assured absolute privacy. Adoption of baby when arranged. Rate reasonable. Flushing, Michigan.

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII OCTOBER, 1933 No. 10

CONTENTS

America's One Undepressed Asset. J. M. Robb, M.D. 531
Important Little Things in the Treatment of Anal Diseases. Louis J. Hirschman, M.D., F.A.C.S. 534
Minimizing Discomfort Following Laparotomy. Le Moyne Snyder, M.D. 540
Studies of Skeletal Remains of Indians. S. E. Sanderson, M.D. 545
The Treatment of Varicose Ulcer. Miln C. Harvey, M.D., F.R.C.S. 546
The Use of Bacteriophage in Certain Eye Diseases. L. F. Carter, M.D. 549
Scopolamine Alone for the Relief of Pain During Labor. Lewis E. Daniels, M.D., F.A.C.S., and F. W. Tamblyn, M.D. 553
Surgery in Goiter. Jerry M. Jones, M.D. 557
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 560
Editorial:
The President of the Michigan State Medical Society 561
Dr. Richard R. Smith, President-Elect 562
Law and Medicine 563
The Medical Journal 563
The Value of Organization 564
On Being Independent 564
Historical:
A Doctor's Records of a Hundred Years Ago. Howell L. Begle, M.D. 565
Obituary 567
Society Activity 568
County Societies 570
Correspondence 571
General News and Announcements 571
The Doctor's Library 572

AMERICA'S ONE UNDEPRESSED ASSET*

J. M. ROBB, M.D.
President, Michigan State Medical Society
DETROIT, MICHIGAN

Mr. Chairman, Ladies and Gentlemen:

It has become a trite expression to say we are passing through a period of transition or adjustment. The fact of the matter is we are always in a transitional state if we have any vitality at all. If the vitality be low, the transition may be scarcely noticeable; if high, it may be accelerated and hence more apparent. The present generation has witnessed changes that are little short of cataclysmic.

History has taught us that economic change occurs most rapidly after great wars. The world war has been no exception. The greater the war, the greater the change. We have had a period of inflation followed by an unprecedented period of deflation. History provides a record of the rise and fall of empires, and the past decade and a half has witnessed the wreck of a greater number of empires than has occurred in a thousand years. With so vast a social upheaval, it goes without saying that medicine, virtually an empire in itself, must be on its guard.

The past fifteen years have witnessed great changes in medicine. Scientifically it has made steady progress. The exigencies of war have systematized and in some respects revolutionized surgery. Internal medicine has met the demands by way of prevention with the result that the death rate from so-called preventive diseases during the war was lower than during that of any previous war in human history. The les-

*President's Annual Address, Michigan State Medical Society, Grand Rapids, September 13, 1933.

sons learned from the war so far as preventive medicine is concerned have borne fruit. Typhoid fever which in former years had occupied so much of the physician's time has become practically extinct. Its sporadic presence has come to be looked upon as a disgrace to any community. The death rate from tuberculosis is on the decline and new methods of treatment have placed tubercular patients largely under the care of the staffs of municipal hospitals. Better sanitation has lowered infant mortality. We see the doctor rendering himself, to an increasingly large extent, unnecessary so far as former curative medicine is concerned. The watchword of the day is prevention, so he must train himself to conform to that order.

Doctors have shown no disposition to let up in their efforts towards self-improvement even though the economic situation has been anything but what they would wish. This is evidenced not only by the increase in attendance where post-graduate instruction is available, but by the disposition to report individual experience in the literature. Many more scientific papers have been produced than can be accorded space for publication in our medical journals both state and national.

I spoke of the exigencies of the economic situation. This is not news. The doctor as a social unit has felt the strain perhaps more keenly than any other professional class or industrial section in the nation. Not only has he been embarrassed financially along with other citizens, but the community burden has been left too often for him to bear alone. I refer particularly to the care of the indigent sick. The indigents are fed and clothed and warmed and housed by the community through funds set aside for public welfare but that greatest necessity of all, care in illness, has been left solely to the physician without thought of remuneration for him. And how has he met it? Had he not remained at his post regardless of financial reward or even the hope of it, it is hard to imagine what the condition of the public health would be now. As a matter of fact, the general health was never better. As a result of the tireless efforts of the family doctor our health remains "America's One Undepressed Asset."

This year the state legislature has been in session. A revision of the Medical Practice Act was long past due, yet, for no *good* reason, it failed to pass. The fact that the profession has been able to carry on under an act that was passed before most of us were physicians, speaks well for the stability and integrity of our members. The governor's veto of the osteopathic bill was a courageous and commendable act and one that should win him the gratitude of the public.

The day of sectarianism has passed. The healing art is built upon researches in the pure sciences such as physics, biology and chemistry and medical research depends upon research in these handmaiden sciences. For this reason there should be but one door to medicine namely, through a knowledge of these basic sciences and thence through the regularly established and supervised medical colleges. If the cults have anything of value to offer, thorough training in medicine and its basic sciences should not render their contribution any less valuable. Medicine has been its own severest, as well as its most intelligent critic. All advancement in medicine has been autonomous. It has also been esoteric; it has been the result of compulsion from within. It is born of a desire on the part of the individual physician for self-improvement. He has been conservative and progressive almost in the same breath; conservative, in his refusal to adopt new methods before subjecting them to that rigid examination that science is wont to give so-called discoveries. No scientific discovery is accepted until it has been checked again and again by investigators whose frankness is their greatest asset. In the court of science every prisoner is suspected until proven innocent by a crowd of witnesses before an implacable bench of unemotional judges. Medicine is, as I have said, *progressive*, inasmuch as its members are on the alert for methods and discoveries of merit. While it has a distinguished history fraught with human interest, it represents an evolution. Perhaps the literature of no other profession is subject to such frequent and painstaking revision.

> "Be not the first by whom the new is tried,
> Nor yet the last to cast the old aside."

I have referred to post-graduate work. The idea was conceived and put into operation a few years ago by the Department of Post-Graduate Medicine of the University of Michigan with the moral and active support of this Society. It has proven a popular movement with the profession. Numerous

members have availed themselves of the opportunity for post-graduate study to be found virtually at their own doors. Plans are being made for an extension of this work but so ambitious are these plans that it will take considerable time and work before they are in shape to be made public. It is just possible too that they may mean the re-organization of our society but the purpose will be to further the science and art of medicine and to advance public health so as to provide adequate medical care for all communities in the state.

During the early part of this year the committee on Survey of Medical Services and Health Agencies completed its work and its report is now before you. An opportunity has been given the public at large to become acquainted with the contents through a series of articles which have appeared in the press. This investigation differs in certain respects from other surveys which have been undertaken on a large scale inasmuch as it was conceived and carried out by the Michigan State Medical Society through the direction of the House of Delegates. A wise choice was made in the personnel of this committee. Dr. W. H. Marshall of Flint and his associates on the committee namely, Drs. L. G. Christian, Bert U. Estabrook, C. S. Gorsline, F. A. Baker, F. C. Warnshuis and Dr. Nathan Sinai, who so ably directed the study, as well as the sub-committees of the county societies, deserve the commendation of the parent society for their thorough, painstaking work. The report contains a vast amount of material conveniently arranged and indexed. The House of Delegates has received it and adopted its recommendations with some modifications. The original committee has been discharged and a new committee on medical economics appointed to carry on further study. The chairman of the House of Delegates at a special meeting at Lansing on July 12th was authorized to nominate a committee on medical economics to succeed the Committee on Survey of Health Agencies. As a result, the personnel of the Survey Committee was selected as the new committee on medical economics. This committee and the county sub-committees are already conversant with the work to be done and have in their possession a large amount of unpublished material which can be utilized for further investigation.

The Michigan State Medical Society is *convinced* that the practice of medicine in this or any American state is *not* a matter for state control. There should be no question in the minds of all reasonable persons but that the care of the indigent sick should be a community burden rather than a burden on the shoulders of any one profession or class. This means that funds should be provided out of the public treasury by taxation to reimburse physicians and hospitals for the medical care of those financially unable to bear this expense. This does not mean that the profession should be under state control, any more than, at present, those who provide food, clothing and housing are or should be under state control. If we are to take a lesson from the experience of European doctors, it should be that at all costs the autonomy of the medical profession should be preserved.

The integrity of the medical profession can be maintained only through organization and the vital unit in this organization must be the county society.

Although it has been a strenuous year, I have enjoyed every minute of it. The year as president-elect affords admirable experience (by way of observation) for the year of the presidency. I have made numerous contacts and personal friends that I shall value as long as I live. It is a distinct honor which one cannot acknowledge lightly to be president of an organization such as the Michigan State Medical Society and he cannot but feel gratitude for the signal distinction and honor conferred upon him. I only hope that I have in a measure merited the honor conferred upon me by the House of Delegates, two years ago. The past year has been a working year. The officials of the society as well as the House of Delegates and members have been alive, up and doing. This is as it should be.

Never was there a time in the history of modern medicine when organization and singleness of purpose meant so much.

Probably never before have the medical men of this state felt so keenly the varied challenges of the hour and probably too they have never been quite so ready to follow progressive leadership to the end that new ideas, new deals, new anything that holds a promise of human betterment is given a fair chance before the bar of public opinion of this state. And indeed this must continue

if America's greatest asset is to remain fluid and undepressed to the end that recovery may soon take place in all lines of industrial and economic activity.

IMPORTANT LITTLE THINGS IN THE TREATMENT OF ANAL DISEASES

LOUIS J. HIRSCHMAN, M.D., F.A.C.S.†
DETROIT, MICHIGAN

Interest in the diagnosis and treatment of diseases of the terminal portion of the alimentary canal has increased rapidly in the last few years. One will find some article dealing with diseases of the anus and rectum in almost any number of the leading medical journals of this and other countries. The number of physicians who are devoting their entire time to the study and treatment of diseases of the anus, rectum and colon is increasing by leaps and bounds. The interest taken in the diagnosis and treatment of the diseases of the anus, rectum and colon by many members of the profession is also on the increase. No medical program or postgraduate course is complete unless a contribution dealing with the diagnosis and treatment of proctologic disease, in some phase, is included.

Since the profession-at-large has been paying more attention to the early diagnosis of malignant disease, the diagnosis and treatment of colitis and other affections of the large bowel and to the investigation of the various foci from which diseases of a more general and toxic character originate, there has been a more genuine desire for more information on matters proctologic. Since there has been an increasing amount of proctologic teaching in undergraduate medical schools, as well as a gradual increase in the number of hospitals devoting special attention to interne teaching in proctology, the number of young practitioners entering the practice of medicine with a better knowledge of proctologic diseases is increasing to a gratifying extent.

As a result of the growing interest of the profession in the treatment of diseases of the anus, rectum and colon, a large number of general practitioners and surgeons are caring for patients suffering from various proctologic diseases. General surgeons, particularly of the younger generation, are evincing more interest in the technical details of the medical and surgical treatment of the diseases of the anus and rectum, particularly.

Some of our professional brethren of an earlier vintage are still inclined to follow the methods of treatment laid down by surgical teachers whose *dicta* may have been the last word thirty or forty years ago, but past whom the procession has swept long ago. In order to assist those practitioners who are treating diseases of the anus and rectum, I have been requested to emphasize some of the little details which assist in making the examination and treatment of patients more comfortable and more satisfactory.

In as much as the diseases affecting the anal canal are accompanied by much more pain and suffering of an acute character than those which affect the rectum and sigmoid, my remarks will be directed towards the consideration of those diseases which affect this region only. In as much as the principles of diagnosis and treatment of anal disease embrace many general principles applicable to all diseases of this region, it will be seen that they may be applied with equal benefit to the diagnosis and treatment of any of them.

The first contact of the physician with the patient suffering from an anal disease is very important. If the physician can conduct a satisfactory and complete examination of this canal with a minimum amount of discomfort or pain to the patient, he has progressed a long way toward the treatment of the patient who is suffering from a painful condition.

†Dr. Hirschman is professor of proctology, Detroit College of Medicine and Surgery. He is a former president of the Michigan State Medical Society.

Here is an important field for the employment of local anesthesia. It is our practice, when the patient has been placed in the left lateral position on the examining table, to insert a cotton-tipped applicator soaked in 2% nupercaine solution. In as much as one can usually ascertain from external inspection on which wall of the anal canal the most painful lesion is located, the local anesthesia is placed in contact with this, with pressure directed towards the opposite wall. This is allowed to remain *in situ* five minutes before any examination is attempted.

In cases where it can be seen, on account of the sphincter spasm or the amount of visible ulceration, that even the insertion of a pledget or applicator would be uncomfortable, local anesthesia by infiltration should be employed. We find that the injection of ½% solution of novocaine around the posterior half of the anus and anal canal suffices to block the sphincteric nerves and allows relaxation of the sphincter, and a painless examination to be made.

In some instances, it is important for the examiner to know the location of the most painful area, then digital examination with the little finger should be employed. The little finger is then inserted while the patient is asked to strain or bear down. The finger should be always supple, and never rigid. As the patient strains, the sphincters will relax, and the finger slowly enters.

Considerable information can be secured by gently encircling the anal canal and the lower rectum with the little finger. If this does not cause much discomfort, the index finger can then be inserted and the condition of the entire rectal cavity can be ascertained. With the other hand on the patient's abdomen, a bimanual examination can be made which will give information as to the condition of the pelvic viscera and the perineum, bladder, seminal vesicles, and prostate as well.

The insertion of the little finger first is advisable, because the difference of circumference of the little finger as compared with the index finger is often sufficient to make what would otherwise be a distressing procedure, a very comfortable one. Too often a physician has been satisfied merely with a digital examination, and because he has not felt anything abnormal, has decided that there was no pathology present.

It may be interpolated at this time that it is very difficult in many cases even for an expert to actually feel an internal hemorrhoid of considerable size. It is therefore urged that the other methods of examination be used in addition to the digital examination.

In the determination of the presence, location, number, size and ramifications of perianal or perirectal fistulas, the injection of bismuth paste through an external opening, and roentgenological examination, employing stereoscopic films, as well as manipulation of the parts under the fluoroscope, are essential procedures. Smears of anorectal discharges are often necessary for the bacteriological diagnosis of many diseases of the anus and rectum.

In addition to smears, culture tubes should be innoculated from diseased crypts in as much as many patients suffering from remote symptoms have been found to have their *foci* of infection located in diseased crypts of Morgagni. The surgical drainage of these crypts and the administration of autogenous vaccine have assisted in relieving patients from arthritis, neuritis and other symptoms which were unrelieved by the removal of other *foci* in the body.

An important matter for the attending physician to decide in the treatment of all diseases of the anus and rectum, is the selection of the indicated therapy. While it is true that the great majority of diseases involving the anus and rectum are permanently cured only after a surgical procedure, a great many patients can be temporarily relieved by nonsurgical methods. Diseases such as pruritis ani, anal fissure, and rectal ulceration, moderate internal hemorrhoids, and uncomplicated prolapse can often be so relieved by local or nonoperative measures, that the result is quite satisfactory, both to the patient and to the physician. Physical, economic, emotional or other considerations may have more weight ofttimes in making this decision than the therapy which the physician feels the condition really demands. This is particularly true in the treatment of internal hemorrhoids, where many times the patient is absolutely unable to abstain from his daily vocation, and must be treated without hospitalization or absence from his business affairs.

There is no form of sclerosing treatment of internal hemorrhoids that is a permanent cure except in the treatment of the

mildest type of uncomplicated internal hemorrhoids. In the case of internal hemorrhoids, it cannot be denied that there are several methods of actually destroying them in a permanent manner without the employment of actual surgery. This destruction, however is accomplished at the cost of deformity due to stenosis caused by faulty or excessive cicatrization caused by fibrosis, and sometimes necrosis. This necrosis may be produced by the use of escharotics, electricity or the actual cautery. Hemorrhoids removed by such methods are in direct opposition to the following principle of tissue conservation which should be observed.

The treatment of internal hemorrhoids by sclerosing methods short of necrosis has to be repeated at intervals of months and in some cases of years. Repeated courses of treatment in patients suffering from internal hemorrhoids may keep the patient comfortable but an absolute cure is rarely effected.

An important point to remember in the surgical treatment of internal hemorrhoids is that of conservation of tissue. No hemorrhoidectomy which contemplates the removal of anything more than the actual pathology, can be considered a proper hemorrhoidectomy.

The hemorrhoid itself is a tumor composed mainly of diseased veins. In as much as the removal and destruction of the bowel lining results in cicatrical contraction with deformity and distortion, such a procedure cannot be classed as good, conservative surgery. On account of this unnecessary sacrifice of mucous membrane, any form of clamp is contraindicated because all of the tissue, whether healthy or diseased, which is included in the bite of the clamp, must be entirely removed by excision or by the use of the cautery. It is very rare that a clamp can be put sufficiently well down to the base of the hemorrhoid to include all the pathology without catching up some of the sphincter fibers. A clamp operation, therefore, is necessarily a blind or improper operation. It is just as illogical to clamp and cut away the mucous membrane covering a vascular tumor, which we know as an internal hemorrhoid, as it would be to use the same technic and cut away the skin covering any vascular tumor of the arm or leg.

In the surgical removal of internal hemorrhoids, an important principle to be observed is the conservation of the blood supply, and the prevention of unnecessary operative hemorrhage. This can be accomplished by the placing of an absorbably catgut ligature around the nutrient vessels of each hemorrhoid, just above and before they enter the hemorrhoid. Each of the three hemorrhoidal arteries and veins is treated in this manner by tying the vessels before they are incised.

In exposing an internal hemorrhoid, an ellipse of mucous membrane, just large enough to account for its excess membrane covering, is removed. These incisions, as well as others in the anorectal canal, are made in a longitudinal direction or parallel to the long axis of the large bowel. The elliptical opening produced will expose the diseased vessel comprising the hemorrhoid. These can be then picked up with the thumb forceps and excised, and all varicose vessels down to the sphincter are removed, exposing the muscle in a manner not possible by the clamp or "blind operation." By visualizing the sphincter, one is able to avoid it, and not damage it. Sphincteric conservation is another principle of anorectal surgery.

Particular stress should be laid upon the fact that dilatation or divulsion of the sphincter is never necessary as a step in any operation on the anus or rectum. If caudal or spinal anesthesia has been employed, the sphincters relax to their fullest extent and any indicated surgical operation can be performed with ease. Many cases of incontinence of feces have been caused by the unnecessary brutal force used to dilate the sphincter under general anesthesia. Often surgeons have been accused of injuring the sphincter muscle by some step of their operation for hemorrhoids when the injury was really caused by tearing sphincter fibers unwittingly when dilating or divulsing under general anesthesia. The amount of force necessary to overcome the natural resistence of these muscles, even when the patient is under the influence of a general anesthesia, is considerable and enough to tear muscle fibers.

It is very important in anorectal surgery to abstain from the use of sutures in closing mucous membrane wounds in this part of the body. In spite of our most advanced methods of sterilization, a perfectly sterile field in this region is practically impossible to secure. During the progress of the operation, bacterially infected mucus is constantly secreted and comes in contact with

the wound. Any attempt to suture a wound in this region inevitably invites suppuration and defeats good and successful operative results. This brings us to an important detail to observe in all anorectal surgery and that is drainage.

Every wound made in the anorectal canal must be carried down through the anal aperature to the perianal skin, as in the removal of all external hemorrhoids, as well as of hypertrophied folds. All incisions must be made radial to the orifice and paralleling the radiating skin folds.

No cups or pockets must be left at the outer extremity of any of these incisions. Every skin wound must taper to a point, so that the edges will agglutinate and heal practically by first intention, if made properly and not sutured. The purse-string action of the external sphincter and the *corrugator cutis ani* muscle will tend to draw the wound edges together, so that suturing, while absolutely inadvisable, is seen to be entirely unnecessary.

Another very important detail to be observed is the abstinence from that almost irresistible impulse to insert a tube, a pack or a tampon into the rectum after an operation. The surgeon is tempted to do this to control hemorrhage, to provide drainage, or to keep the rectum and its muscles "in extension" during part of the healing process.

If one is following the principle mentioned above, viz.: to ligate before cutting, any sort of pack to control hemorrhage will be entirely unnecessary. If packing and tubes are inserted to provide drainage, this is only necessary if one cannot relax the sphincter under some sort of regional anesthesia. The tube or pack acts as a foreign body, however, and induces earlier peristalsis than is desired by either patient or physician.

Packing or tampons are employed by some surgeons to keep the rectal muscles "in extension." This is also unnecessary and undesirable for the reason just mentioned. One secures such perfect relaxation through the employment of sacral or spinal anesthesia, that the muscles relax to an extent unbelievable until it has been actually observed by the surgeon.

As soon as sensation returns to the parts, any material inserted into the rectum by the surgeon produces the same stimulus as a stool would do, and peristalsis with an unnecessary and inexcusable amount of pain and suffering is thus produced. This has been proven by the author and others, by the employment of rectal tampons or pneumatic dilatation of rubber bags inserted into the rectum, to induce peristalsis in the treatment of chronic atonic constipation.

If you wish to provide drainage and prevent agglutination of opposing raw surfaces, a strip of rubber dam or gutta-percha tissue, not over one inch in width, may be inserted into the anal canal, and will remain without the patient being conscious of its presence.

The question is often asked, "How do you keep the bowels locked up after a rectal operation and prevent them from moving for several days?" Our answer is that it is never necessary to lock up the bowels. If there is any one thing the bowels will not do after rectal operation, provided the peristalsis is not stimulated by presence of foreign material such as guaze or rubber tubes; it is to move without assistance. As a matter of fact, in personal practice it is the custom to administer large doses of mineral oil on the evening following the operation, and every evening thereafter, in order to facilitate the bowel movements when it is desirable to start the same.

The use of drugs such as opium, bismuth, salol and the various tannates are of no avail as one can realize by the amount of bismuth or barium which is used in the administration of barium enemas in roentgenology. These enormous doses seldom have the effect of retarding peristalsis.

The administration of mineral oil is of chief value as a lubricant to facilitate the passage of the stools. In this postoperative use, it does render their contact with raw surfaces less irritating. Best results, however, in the administration of mineral oil are achieved by the employment of one large dose at bed-time. Only too frequently the oil is mistakenly taken before meals as well as at night. If an inert and indigestible oil is administered just before food is taken, it it quite certain that food particles will be coated with an impervious film of oil and digestion retarded or prevented. That this does occur, is evidenced by the fact that so many patients object to mineral oil, because the digestion is disturbed, and they suffer from eructations of gas after they have taken the oil.

Interrogation of these patients reveals one fact—that it is only when oil is administered

before meals that they are disturbed by the formation of gas. Patients who take oil at bedtime do not make this complaint.

In the surgical treatment of fistula, either anal or rectal, there are several important details to be observed. In the first place the diagnosis should be made without ever inserting a hard or inflexible probe or director. Through our roentgenological studies we have learned long ago that the straight or "goose quill" type of fistula is the exception rather than the rule. We know that most fistulas are either curved or tortuous, or that they consist of definite cavities, which communicate with both mucous and cutaneous surfaces by means of channels much narrower than the parent cavity.

Knowing this to be a fact, the insertion of a probe blindly into a fistulous opening results usually in the production of false or traumatic tracts. The surgeon who proceeds in this manner with a probe is traumatizing the patient and adding to his troubles. If a probe is deemed indispensable, only a soft annealed silver wire of the smallest caliber sufficient to enter the channel, should be used.

Far better than a probe is the employment of bismuth or other opaque paste injected in a fluid state into the external opening of the fistula. If more than one external opening is present the bismuth paste will emerge from the other external openings as well as from the internal ones. Through an anoscope the yellow bismuth paste can be seen at the point of location of the internal opening or openings. These will naturally be found at the site of one or more Morgagnian crypts. The majority of these crypts are in the posterior quadrants.

A paste is much better than a colored solution for diagnostic purposes, as the paste remains in situ and can be palpated as well as seen. Slight pressure on the paste filled cavity will cause the paste to be seen as it emerges from any of the openings.

The stereoscopic radiographs of these fistulous tracts and cavities are made while the bismuth paste is in place. These films give a remarkably accurate picture of the size, location, direction, and relation of the fistulous tracts.

After a diagnosis has been made, the question of treatment naturally presents itself. The treatment of a fistula is of course governed by the type of fistula presenting itself. Incomplete or "blind" fistulas, or those which have but one opening are sometimes known as perianal or perirectal sinuses, depending on the point of origin. Those with but an external opening are known as external sinuses, and those with but an internal opening, as internal sinuses. Those channels with both internal and external openings are known as fistulas.

An external sinus requires merely the enlargement of the opening so as to convert it from a bottle-shaped cavity to an open draining wound. Others will sometimes heal after the injection of bismuth paste. Most of them, however, require incision or excision.

Inasmuch as a fistula is the second stage of the disease which originates as an abscess, the prophylactic or abortive treatment of fistula is the immediate recognition and complete drainage of the abscess.

Whenever this can be accomplished a fistula is prevented, providing that the starting point or focus of the infection is recognized and removed. As has been stated above, the vast majority of fistulas originate in infection of the perianal crypts. Those which follow the occurrence and infection of a thrombotic hemorrhoid are purely external in character.

The appearance of a definite area of swelling, accompanied by marked tenderness, pain and usually temperature is sufficient indication of the presence of an abscess of this character.

An abscess should be punctured immediately on recognition, in order to relieve tension and prevent spontaneous rupture in an undesirable quarter. This puncture not only relieves tension, but by allowing the escape of a certain amount of pus relieves the patient's pain, as well as preventing further spread or extension of the suppurative process. The patient should be informed, however, that the puncture is merely a temporary relief measure, and that the abscess must be operated upon within the next day or so in order to secure complete removal and drainage. An abscess which has been merely punctured will usually degenerate into an external sinus or so-called "blind fistula."

A very important detail of after-treatment in both abscesses and fistulas, is the avoidance of the use of gauze packing. As experience has taught us, gauze not only ir-

ritates tissues, but it actually prevents rapid healing. It acts as a foreign body and produces a stimulus to the formation of an unnecessarily large amount of fibrous tissue produced in wound healing.

In fistula operations where it has been found necessary to sever the external sphincter muscle, packing keeps the muscle ends apart and causes an overproduction of fibrous tissue between the cut ends of the muscle and induces partial, if not complete, incontinence. A plug of fibrous tissue prevents good muscle union. If all infected tissue is excised, all side channels removed and bleeding vesesl tied, clean raw wounds will remain where the abscess of fistulous cavities were removed.

In order to prevent agglutination of the skin or mucous surfaces, pieces of thin rubber dam or of gutta-percha tissue are inserted, to be removed in forty-eight hours. If no gauze has been packed against this tissue, it will be found that the cavities have decreased from fifty to seventy-five per cent in size, and what seemed to be a deep wound has become a very shallow one. If all abscesses and fistulous wounds are saucerized by trimming back the overhanging edges of skin, the treatment of these wounds becomes practically that of surface wounds, and healing without distortion or deformity is the result.

When fistulous tracts undermine the sphincter muscle, a sure way to avoid incontinence is to incise the sphincter in two stages. At the time of operation incise one-half, using the upper half of the sprincter as a splint to the lower or severed portion, then encircle the remaining fibers with a loose loop of suture silk, which will be allowed to remain until the open half of the fistula is healed. The lower half, or that surrounded by the silk seton is removed at a later date, when anesthesia is produced by infiltrating the parts with a few drops of novocain solution. This technic insures fecal continence by not incising the entire sphincter at one time.

If several fistulous tracts are present and undermine the sphincter they all should be injected with bismuth paste, and a silk suture drawn through each tract and loosely tied around the sphincter to remain as drains and signposts to identify the location of each tract. Only one tract undermining the sphincter is operated upon at each stage, and this is allowed to heal completely before another tract, preferably opposite this one is treated in the same manner.

By this method any number of fistulous tracts may be removed and the muscle severed in its entirety in several locations, without in any way interfering with the normal function. Fecal incontinence, therefore, is a condition which should never follow a properly performed operation—provided there has been no destruction of the muscle tissue by the disease or by trauma before the patient comes under his physician's observation.

In all diseased conditions of the anal canal in which pain, and particularly spasmodic pain, is an important factor, physiologic rest of the sphincters is an important consideration. This is particularly true when the patient is suffering from a fissure or an ulcer of the anal canal.

In former days we were taught the way to produce this physiologic rest was by manual or instrumental divulsion of the sphincter muscles under general anesthesia. This means tearing of the sphincter fibers. It is true that tearing the sphincter muscle puts the muscle at rest, but in a brutal and unsurgical manner. It is much more logical, comfortable, and surgical to put this muscle at rest with local or caudal anesthesia by a simple incision at right angles to the sphincter fibers. The injection of a two per cent novocain solution into the caudal canal or a one-half per cent solution posterior to the anal commissure so as to block the nerve supply of the sphincter, is sufficient to anesthetize and relax the sphincter fibers. When anesthesia is produced, which occurs in a very few minutes, an incision across the sphincter muscle through the bed of the fissure or ulcer, and excision of the sentinel pile will be sufficient to secure rest, and healing will immediately follow.

A few other details governing the well-being and successful convalescence of patients who have undergone anorectal operations could be elaborated with profit. On account of the limitations of this paper we will have to be satisfied with the mere mention of them.

One factor which is conducive to early convalescence, not only from the psychological standpoint, but from the benefit of the posture and improvement of circulation, is to encourage patients to sit up, to walk and

to defecate in a normal manner as soon as they are able to do so.

By a proper supervision of the patient's diet a soft, but formed, daily stool should be encouraged. A normally shaped stool of normal consistency is, after all, nature's dilator.

If both patient and physician will resist the impulse to indulge in saline or other cathartics, which produce irritating and fluid stools, we shall not hear so much about painful defecation and postoperative stenosis.

The overindulgence in and abuse of enemas, and particularly the use of soapsuds enemas, is to be strongly deprecated.

A few important details in promoting the well-being and successful convalescence of patients who have undergone anorectal operations will be briefly mentioned. The sooner that a patient can sit up, walk and indulge in the normal use of the toilet, the better will be his circulation and the better his psychological viewpoint.

The equalization of circulation and comfort and relief afforded by hot sitz baths can best be described by the patients who are usually inclined to overdo this.

It is the attention to the little details which avoid unnecessary pain and discomfort to the patient on examination. A minimum amount of trauma during treatment and sympathetic and conscientious attention to the little details of postoperative comfort make for success in the treatment of patients suffering from anal diseases just the same as in the treatment of diseased conditions affecting other parts of the body, and particularly those organs which cannot be put at rest.

7815 E. JEFFERSON AVENUE.

MINIMIZING DISCOMFORT FOLLOWING LAPAROTOMY

REPORT OF ONE HUNDRED CONSECUTIVE CASES

LE MOYNE SNYDER, M.D.†
LANSING, MICHIGAN

The subject of distention and gas pains is so frequently discussed by laymen and so rarely by surgeons that the question arises whether something cannot be done to alleviate a large part of postoperative distress. A survey of the current medical literature reveals very little on the topic and most of the recent surgical textbooks scarcely mention it. The few contributions which are found indicate that the problem is being attacked from widely divergent angles. Capelle and Fulde[2] believe that postoperative pain is primarily due to trauma of the abdominal wall and have devised a unique method of keeping the incision anesthetized for five days following the operation. Potter and Mueller[12] have employed injections of pituitary extract every four hours from the time of operation and continued them for a dozen or more doses to prevent intestinal distention. In actual practice, for years and even decades back, there has been very little change in the care of postoperative patients. The major reason for distention and gas pains is that the more or less routine treatment does not consider the normal function of the various parts of the digestive tract nor does it take into account the changes due to operation. The person about to undergo a laparotomy has good reason to dread the subsequent distention but if the after-care is founded on a sound physiological basis, discomfort can be largely avoided.

†Dr. Snyder graduated from Harvard Medical School in 1923. After an internship in the Fifth Avenue Hospital, New York, he served a year as resident surgeon of that institution. Following a year at sea as ship surgeon, he has been practicing at Lansing, Michigan, where he is attending surgeon on the staffs of E. W. Sparrow and St. Lawrence Hospitals.

PHYSIOLOGY INVOLVED

A few fundamental considerations are necessary in the intelligent care of these patients. Kanavel and Koch[7] have emphasized that rest, fluids and food are essential for prompt recovery after operation and that none of them can be dispensed with for twenty-four hours without definitely prolonging the postoperative course. However, one of the most important considerations is that of decreased motility of the intestine due to the trauma caused by laparotomy. It is necessary to bear in mind the nerve supply of the intestinal tract and its

control of peristalsis. To quote Sweet,[13] "It is generally supposed that the motility of the intestine, which originates in the intrinsic nerve plexuses in the walls of the stomach and intestine, is transferred either along the intrinsic nerves or from muscle cell to muscle cell. This mechanism alone results in activity of the alimentary canal of a mechanical regularity and rhythmicity. Under the influence of the extrinsic nerves, these contractions exhibit frequent changes in force and amplitude, and a coördination which permits the regulated activity of the bowel." For years it has been known that opening the peritoneal cavity and admitting air is sufficient to produce an ileus lasting approximately twenty-four hours. The cause of this paralysis is not entirely certain but it is probably due to the stimulation of the sympathetic system which is inhibitory to the intestinal tract. Convincing proof of this is offered by the fact that either splanchnic or spinal anesthesia will release the inhibitory reflex in many cases of paralytic ileus, thus allowing the intrinsic plexuses of the intestinal wall to again become operative. The duration of the normal postoperative paralysis depends in large measure upon the amount of trauma to the peritoneum and the consequent sympathetic stimulation.

Bearing this in mind, what is the physiology of distention? McIver, Benedict and Cline[9] demonstrated that in distention the gas may arise from three distinct sources, (1) the decomposition of intestinal contents, (2) the diffusion of blood gases into the intestinal lumen, and (3) atmospheric air which is admitted by swallowing. It is their opinion that the last is the most important source of gas in postoperative distention. Underlying this, however, the primary factor is the loss of function of the small intestine and the severity of the distention is in inverse proportion to the time before normal peristalsis is re-established. Roentgenologists[6] have called attention to the similar x-ray findings in acute intestinal obstruction and postoperative ileus. Immediately after an abdominal operation, the patient in many respects is actually suffering from intestinal obstruction. Both conditions are quickly followed by an accumulation of gas and fluid in the small bowel. The cause of this series of events after laparotomy is that in addition to the paralysis of the bowel, the normal intestinal contents are missing and are in many instances absent for several days. The result is an altered bacterial and chemical action in the small intestine resulting in faulty fermentation and the production of gas as a by-product. The one natural stimulant to peristalsis, solid food, is absent. Consequently a vicious circle is set up by the presence of gas and air which cannot be moved. Under normal conditions, carbon dioxide is absorbed from the intestine in enormous quantities while air is scarcely absorbed at all. As the inflation becomes pronounced the blood supply to the intestine is obstructed, with the result that gas absorption is greatly reduced and the worse the distention becomes, the more favorable are conditions for gas formation. It is thus seen that the early use of solid food is necessary to provide the enzymes and bacteria of the small intestine a natural substance for normal digestion, and secondly to supply the small intestine with solid material to stimulate peristalsis.

FACTORS IN POSTOPERATIVE DISCOMFORT

Many procedures now in common use are in derogation of these physiological principles. The after-treatment of each patient must be based upon the type of operation and the pathology involved. However, in those situations not complicated by intestinal anastomoses or extensive peritonitis, it is possible to point out the steps which should be taken or avoided to restore early normal function of the digestive tract.

Pre-operative Catharsis.—While this is not employed as frequently as in former days, it is still in fairly common use and is mentioned here only to condemn it. It is an unnatural procedure which irritates and upsets the normal working of the entire intestinal tract. Cutting[5] believes pre-operative catharsis to be bad because of the irritated condition of the bowel following its administration and also because of the inertia of the intestines which follows a period of hypermotility. The loss of material in the bowel leaves nothing to incite peristaltic action and restore activity following the operation.

An additional reason why this should not be employed is that it dehydrates the patient and makes conditions more favorable for the development of acidosis. Bird,[1] Coller[4]

and others have pointed out the necessity of maintaining a high fluid balance immediately following operation. A cathartic before operation inaugurates a series of events which are simply an added burden for the patient to overcome during convalescence.

Peritoneal Trauma.—This has been mentioned in a previous paragraph and is referred to here because so much of it is unnecessary. A certain amount of injury is unavoidable, but such measures as the use of adequate incisions to avoid undue traction on the peritoneum, the use of rubber tipped forceps whenever it is necessary to pick up the intestine, and the use of moist packs to prevent excessive drying and exposure all have the effect of minimizing this peritoneal shock.

One procedure involving operative technic is so common and is such a factor in causing postoperative discomfort that it merits mention. Reference is made to the routine of burying the appendix stump with the purse-string suture. It is a time honored procedure but one which when scrutinized from the physiological and pathological viewpoint is of questionable value. Many surgeons prefer to bury the appendix stump and if the cecum is easily mobilized and the appendix freely moveable, this maneuver has little or no effect on prolonging the postoperative ileus. Often, however, it cannot be done without considerable traction upon the cecum and in such a case it is best not to attempt it.

There are still other measures which have not been discussed, such as the use of amniotic fluid concentrate which to say the least looks promising.

Administration of Fluids After Operation.—Often the first request of the postoperative patient is for a drink of water, particularly if the preoperative hypodermic contained atropin. Many surgeons restrict the use of liquids for the first twelve or twenty-four hours on the grounds that anything taken by mouth causes nausea, but careful observation will generally disclose that the postoperative use of liquids causes vomiting only where nausea is already present due to gastric irritation from the anesthetic. This vomiting, which is usually more in the nature of a regurgitation, has the effect of a gastric lavage with consequent relief to the patient. Except following operations directly upon the stomach or intestine where obviously the taking of fluids by mouth is contraindicated, warm water will be given freely immediately after operation and tea or broth added a few hours later.

If it is necessary to give fluids in the form of saline or glucose after operation, they should be given subcutaneously and not by rectum. There are several reasons why retention enemas and rectal drips should not be employed in this stage. Normally, the absorption of fluids is limited almost entirely to the cecum and ascending colon. McNealy and Willems[10] demonstrated that in all probability glucose is not absorbed in the colon at all. In addition, it must be remembered that the bowel at this stage is paralyzed and the injection of two or three quarts of fluid has the effect of overdistending and overstretching. The resultant irritation constitutes a factor tending to retard the early return of peristalsis. Incidentally, x-ray studies show with what ease the cecum is filled by barium enema. Particularly in cases of appendectomy, is it good surgical practice to put a head of fluids against the site of the appendix stump almost immediately after operation? The colon was designed for a specific purpose and the less its natural physiology is interrupted the less the patient is going to suffer.

A properly given hypodermoclysis is more effective and painless. There are several considerations worth mentioning in the proper administration of subcutaneous fluids. In the first place, if the needle is directed toward a point low in the axilla, the absorption will be as rapid and with less resulting soreness than if given under the breast. If a small wheal is made with novocain, the hypodermoclysis needle can be introduced painlessly and then if about half an ounce of the novocain solution is poured into the saline, the pain due to distention of the tissues will be eliminated. These are small points, to be sure, but they simply make the difference between an experience which is later recalled with horror and one which is usually entirely forgotten.

Postoperative Feeding. — Twenty-four hours after returning from the operating room, the patient should be given a soft diet and encouraged to eat, followed at the end of the next twenty-four hours by increasing the nourishment to regular house diet. This early feeding is the most important single step in the prevention of distention and gas pains. At first one might think that the administration of solids so soon after an ap-

pendectomy would result in leakage or a blow-out at the site of the appendiceal stump, but, paradoxical as it may seem, the avoidance of such a catastrophe is one of the principal reasons why it should be done. By the time food reaches the ileocecal valve, its physical consistency is about the same, regardless of whether it was solid or liquid when swallowed. It will be recalled that the natural ileus due to peritoneal shock has practically subsided at the end of twenty-four hours. At this stage the stomach and intestine need some mild stimulus to initiate peristalsis and the most natural substance to incite bowel action is solid food. In addition, it provides the material for enzymic and bacterial action in the upper intestinal tract and consequently, faulty fermentation with gas production is avoided. Obviously there is less possibility of an accident at the site of the appendectomy with the bowel functioning normally than if it were paralyzed and ballooned with gas.

Rôle of Narcotics.—What part should the use of morphia play in this program? There are few questions in surgery about which there is such a wide divergence of opinion. While it is true that experimentally morphin seems to stimulate peristalsis, it must be admitted that the total effect on man is definitely constipating. In addition to frequently causing nausea, Coburn[3] has pointed out that the prolonged respiratory depression caused by narcotics increases the incidence of early postoperative pneumonia. After an experiment in which they used high and low morphin dosage, Paine, Carlson and Wangensteen[11] came to the conclusion that morphin dosage was not an important factor in causing distention and gas pains. However, the amount which they considered low was nearly double the average dosage used in the cases in the table following.

The only indication for the postoperative use of morphia is to relieve pain and suffering which cannot be easily alleviated by some other method. Too often the first and only thought in giving relief to an uncomfortable patient is to administer repeated hypodermic injections when intelligent nursing is all that is required. Such simple measures as changing position, elevating the knees upon pillows, gentle massage of the back and extremities will save many a narcotic injection. The reason for this attitude toward morphia is that its constipating effect is often one of the chief factors in establishing the vicious circle of distention, gas pains, morphia, distention, etc. Soon after operation the patient almost always requires an opiate and for the first twelve or eighteen hours it should not be withheld if necessary, but rarely are more than two injections required. The effect of the morphia is gone by the time that the ileus would naturally be subsiding so that peristalsis is not delayed. By the following day when the patient is taking food and drink freely one of such simple combinations as aspirin and phenobarbital is all that is necessary to keep him perfectly comfortable.

Urinary Retention.—Inability to void is so frequent after all types of abdominal operations that it is best to consider it as an incident rather than a complication of laparotomy. Surgical opinion is divded as to when catheterization should be employed and some hold the extreme view that a patient should be catheterized only as a last resort. The reason for this opinion is that they believe that cystitis and other infections of the urinary tract are frequently introduced by this means. Urologists now are quite in accord that the normal bladder is not easily infected. Kaufman[8] writes that "it is the factor of residual urine or of overdistention that causes cystitis rather than catheterization per se." Looking at the question from this standpoint, there is no reason why the patient suffering from bladder distention should not be catheterized at the end of twelve hours and as often afterwards as necessary.

Postoperative Purge.—The giving of a dose of castor oil or other brisk laxative to a patient three or four days convalescent from a laparotomy has all the objections of the preoperative cathartic. It is not only unnecessary but it upsets normal intestinal action and is invariably followed by two or three days of constipation. In addition, catharsis is a tiring, distressing ordeal to which to subject anyone, especially a patient whose intestinal tract is just recovering from a major shock.

On the day that house diet is instituted, the patient will be passing gas freely due to the fecal accumulation which normally would have been expelled during the two previous days and a low enema will now get rid of it with a minimum of discomfort. With the starting of house diet, two or three

drams of mineral oil after each meal will assist in overcoming the natural obstipation due to lying in bed.

If the above régime is carried out, the third or fourth postoperative day will find the patient with the entire alimentary tract functioning normally and the common postoperative purge would not only do no good but is definitely contra-indicated.

TABLE AND COMMENT

This particular phase of surgery does not lend itself easily to scientific control in the usual sense of the word. In order to show the result in unselected cases, the accompanying table is based on 100 consecutive laparotomies.

ANALYSIS OF 100 CONSECUTIVE LAPAROTOMIES

1. Structures Involved	
Appendix	73
Inguinal canal	9
Female pelvic organs	15
Biliary tract	7
Miscellaneous	20
2. Postoperative Course	
Deaths	2
Smooth and uneventful	83
Complications	15
Wound sepsis	4
Fecal fistula	1
Pneumonia	3
Typhoid	1
Distention and gas pains	6
3. Postoperative Opiate Injections	
Greatest number per patient (1)	7
Least number per patient (4)	0
Average for 100 cases	2.35
Average for 83 uncomplicated cases	1.95
4. Postoperative Hospital Days	
Greatest number per patient (1)	60
Least number per patient (9)	5
Average for 100 cases	11.06
Average for 83 uncomplicated cases	8.63

Under "miscellaneous" are grouped operations for such conditions as gunshot wounds, intussusception, Meckle's diverticulum, peritoneal adhesions, subdiaphragmatic abscess, etc.

One of the deaths occurred on the third day following the perforation of a typhoid ulcer and the other was twenty-hours after a traumatic abdominal perforation complicated by a fractured skull. By a "smooth and uneventful postoperative course" is meant that the patient had no complication and did not suffer discomfort great enough to warrant any measures for relief other than those indicated above in the routine treatment. Of the three cases of pneumonia, one developed on the second postoperative day, another on the third and the most serious one, which nearly proved fatal, on the seventh.

Of the six patients who suffered from distention and gas pains enough to require special attention, three were relieved by enemas alone. One of these patients was a young man who had had an operation for bilateral hernia. While I was away, he was given four injections of morphia, at least two of which should have been avoided. Following this, he suffered quite severely from gas pains for two or three days. The other three patients were desperately sick at the time of operation. One, a short, heavy man with fulminating appendicitis required both gastric lavage and enemas with pituitrin for relief. The other two patients were suffering from intestinal obstruction and had considerable distention at the time of operation. One of these also required enemas with pituitrin, while the use of a Levin tube for one day was sufficient to relieve the other.

SUMMARY

1. To minimize postoperative discomfort, it is essential to understand the normal physiology of the digestive tract and the changes produced by laparotomy. Most important of these is the ileus lasting approximately twenty-four hours, caused by peritoneal shock.

2. Those measures should be avoided which tend to prolong this ileus and the management directed towards promoting early peristaltic action.

(a) Preoperative catharsis and fasting are to be avoided.

(b) Peritoneal trauma is to be reduced to a minimum.

(c) Fluids by mouth will be allowed as soon as the patient is conscious, and, if necessary, given by hypodermoclysis but not by rectum.

(d) Twenty-four hours after operation the patient will be given a soft diet and the nourishment changed to regular house diet the following day.

(e) Morphin will be given when the patient cannot be made comfortable by other means but its use will be avoided if possible after the first twenty-four hours.

(f) The patient suffering with bladder distention will be catheterized twelve hours after operation and as often later as necessary.

(g) Postoperative catharsis is contraindicated.

3. The results of this management in 100 unselected cases is analyzed. Of this number 83 had a smooth and uneventful convalescence. There were 2 deaths and 15 others suffered complications sufficient to prolong their hospitalization period. Of this number 6 suffered from distention and gas pains severe enough to require enemas or other measures for relief.

1201 CITY NATIONAL BUILDING

BIBLIOGRAPHY

1. Bird, C. E., and MacKay, E. M.: Healing of wounds; experimental study to show influence of body dehydration. Surg. Gynec. Obst., 54:872-881 (June), 1932.
2. Capelle, W., and Fulde, E.: Die örtliche Ausschaltung des Nachschmerzes Bauchoperierter. Deutsche Ztschr. f. Chir., 237:637 (Nov.), 1932.
3. Coburn, Raymond C.: Minimizing early postoperative pneumonia. J. A. M. A., 100:1392 (May 6), 1933.
4. Coller, Frederick A.: Some important factors of postoperative treatment. J. Mich. M. Soc., 32:211 (April), 1933.
5. Cutting, Reginald A.: Principles of pre-operative and postoperative treatment. Am. J. Surg., New Series, 19:71 (Jan.), 1931.
6. Ginzburg, L.: X-ray diagnosis of acute intestinal obstruction without the use of contract media. Ann. Surg., 96:368 (Sept.), 1932.
7. Kanavel, A. B., and Koch, S. L.: Bull. Amer. Coll. Surg., 11:14 (July), 1927.
8. Kaufman, L. R.: Use of the catheter in retention. Am. J. Surg., 7:785 (Dec.), 1929.
9. McIver, M. A.: Benedict, E. B., and Cline, J. W.: Postoperative gaseous distention of the intestine: An experimental and clinical study. Arch. Surg., 13:588 (Oct.), 1926.
10. McNealy, R. W., and Willems, J. D.: Absorption of glucose from the colon. Surg. Gynec. Obst., 49:794, 1929.
11. Paine, John R., Carlson, Herbert A., Wangensteen, Owen H.: The postoperative control of distention, nausea and vomiting: A clinical study with reference to the employment of narcotics, cathartics, and nasal catheter suction-siphonage. J. A. M. A., 100:1910 (June 17), 1933.
12. Potter, P. C., and Mueller, R. S.: Posterior pituitary extract in the prevention of postoperative intestinal distention. Ann. Surg., 96:364 (Sept.), 1932.
13. Sweet, J. E.: Physiology in surgery. Nelson Loose-Leaf Living Surgery. New York, Thomas Nelson & Sons, 1:74, 1928.

STUDIES OF SKELETAL REMAINS OF INDIANS

S. EDWARD SANDERSON, M.D.†
DETROIT, MICHIGAN

In view of the fact that the orthopedists in recent time have been devoting much thought and study to certain forms of spinal curvature (kyphosis) certain findings made in Indian skeletal material take on added interest.

The condition belongs under a general classification of wedge-shaped vertebral bodies. Found in lateral x-ray studies of the dorsal spine, one or more bodies may be deformed and their upper or lower borders irregular. Skeletal study of either recent or ancient material unfolds the fine points for bone investigation. In an analysis of nearly thirty adult skeletons found near Detroit, and excavated by the author, during the past year, at least 25 per cent were found to have vertebral bodies which were wedge shaped. In some only one would be affected: in others two or more. These were always dorsal vertebræ—mid-dorsal or lower dorsal. These skeletons are of prehistoric Indians judged to be of the Algonquin nation, Potawatomies or Wyandottes. These people were both hunters and agriculturists, even in early times, and the women were the burden bearers. It is interesting to note that the deformity was not restricted to the female.

Much discussion has arisen over the condition. This disease has been called "peasant's back," under the supposition that posture during the growing age was an etiological factor. It is often called Kuemmel's disease, and might be classed with recent diseases rare and popular. Could we ask what if any effect does the "debutante slouch" have? At any rate, we know that ancient man was a sufferer and therefore we cannot claim that modern man has a monopoly on Kuemmel's disease.

EFFECTS OF HEAD BINDING

From time unrecorded certain tribes of Indians have practiced head binding. Circular cloth bands alone were used in some tribes, while others used boards either frontal or occipital. What effect did the practice have on form of skull and on function of brain?

In my collection of skulls there is one "bound head" (circular binding) of a South American Indian found in an ancient burial ground of the Andes Mountains. For comparison I have also: a dry skull from the temple of Thebes (from the collection of the late Bela Hubbard), two Egyptian

†Dr. Sanderson holds the degree of M.D., Detroit College of Medicine, 1896; practised General Medicine and Surgery until 1920, took postgraduate work in x-ray at Harvard Medical School, 1920, and now specializes in x-ray.

mummy skulls and many local Indian skulls; I have also made a study (with x-rays) of the Philippino skulls of the University of Michigan Museum, collected by Dr. Guthe.

With scores of x-ray studies of the living we can draw some conclusions. The bound skull is of thin, hard bone having pronounced air spaces: the key pattern is oval. This type we speak of as thyroid, posterior pituitary dominant. Skulls of this type have the characteristics spoken of, namely, thin, hard bone with pronounced air spaces, and as well each has a circular or deep oval sella with thin curved dorsum. In the bound head the bones at the base of the skull appear unaffected from the supra orbital ridge to the occipital prominence: the middle fossa and the posterior fossa are apparently unchanged. However, a marked flattening of the frontal bones is seen (2.5 to 4 cm.) with a corresponding pushing back of the coronary suture and a compensatory backward, upward curve of the contours of the parietal bones. In other words, the thin skull bones (frontal and parietal) are flattened or curved, while all others seem unaltered. There is also a shortening of the bitemporal diameter, making the brain case become pear shaped.

From a dry skull it is impossible to determine interference with function. The brain of necessity would conform to the surrounding envelope of bone and would therefore become pear shaped. All bone markings indicate no soft tissue changes except altered relationship, so that the process of deformation leaves no evidence of brain injury.

THE TREATMENT OF VARICOSE ULCER

MILN C. HARVEY, M.B. (Tor.), F.R.C.S. (Edin.)†
DETROIT, MICHIGAN

During the past few years definite advancement has been made in the treatment of "leg ulcer" due to the more accurate knowledge of the underlying pathology.

As the title of this paper indicates, only the varicose ulcer will be dealt with, as limited time does not permit otherwise.

Ulcer cruris, or as more commonly known, varicose ulcer, may be one of the most severe and disabling pathological conditions of the lower extremity. In the past, crippling produced was occasionally so determinate, from the existence of a prolonged course, that amputation became necessary to remove the extensive morbidity and return the individual as a more or less useful member of society. Further, all will remember, in their early student days during the introduction to clinical surgery, that every well-organized out-patient department or dispensary held an afternoon clinic where these unfortunate patients were regular attendants, many for twenty-five years or longer. Heretofore, few varicose ulcers, relatively speaking, have been attended in private practice. It would appear as though people so afflicted and medical men avoided each other; which would seem sufficient proof that treatment was unsatisfactory. Now, however, the profession is gradually being consulted more and more for this condition. This is due to two factors: (1) Knowledge of success of cure becoming more widespread amongst the laity; (2) increased professional interest.

From the above, it is evident that the economic importance of this problem warrants our attention.

Varicose ulceration is preceded and accompanied by varicosities. With the existence of the latter a reversed circulation in the saphenous system has been set up. The establishment of this condition is decidedly aided by gravitation and is markedly aggravated by it thereafter, so that vascular equilibrium does not prevail in the lower part of the leg when in the standing position. Thus is initiated an increased venous or hydrostatic pressure in these vessels. Due to this defective venous circulation, there are local blood chemistry changes, the

†Dr. Harvey after graduating from Toronto University Medical School studied in Edinburgh and in Vienna for several years before locating in Detroit.

carbon dioxide content of the blood within the varices being measurably increased; the converse is true of the oxygen content, which is markedly decreased. The effect of

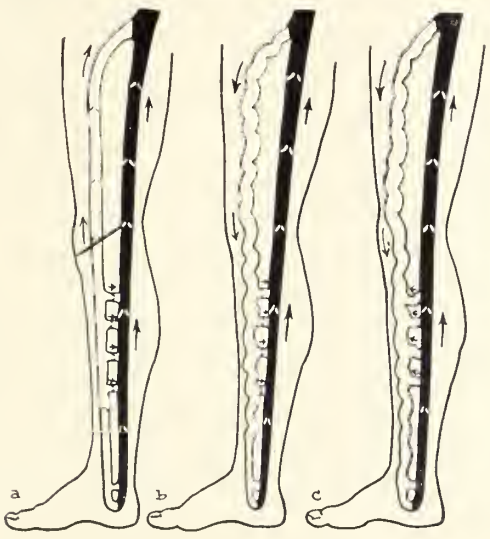


Fig. 1. (After De Takats) *A*, normal lower extremity. Arrows indicate direction of venous flow in deep and saphenous systems. *B*, Trendelenburg positive. Requires ligation at highest point of reflux in saphenous system, followed by injections of varices. *C*, Trendelenburg doubly positive. Requires similar measures to *B*, plus radical surgery to secure the anastomotic branches.

this local partial asphyxia on the contiguous tissues, induced by a combination of factors —increased venous pressure, damaged endothelial living and secondary lymphatic block, is manifested by increased cell permeability. The existence of this latter causes excess plasma proteins, as fibrin, globulin and albumin. Consequently, due to this increased protein content of the venous blood, it would appear as prima facie evidence as having a definite bearing on the frequent observation of phlebitis, venous thrombosis and lymphatic stasis or obstruction in varicose veins. Therefore, this anoxæmia, together with local acidosis (retention of CO_2 and other waste products, as lactic acid) explains the nutritional disturbances in the tissues, the slow healing of wounds, and the chronicity of ulcers in the lower extremities, the veins of which are varicosed. Further, this would prove the sequence of the train of events leading to the complications such as edema, eczema and ulceration or periosteal thickening.

The pressure of the dilated varix or varices causes atrophy in the surrounding tissues. The structure to suffer most is the skin, and a thinning out of the immediately overlying integument is another factor favoring ulceration.

The immediate cause of tissue breakdown

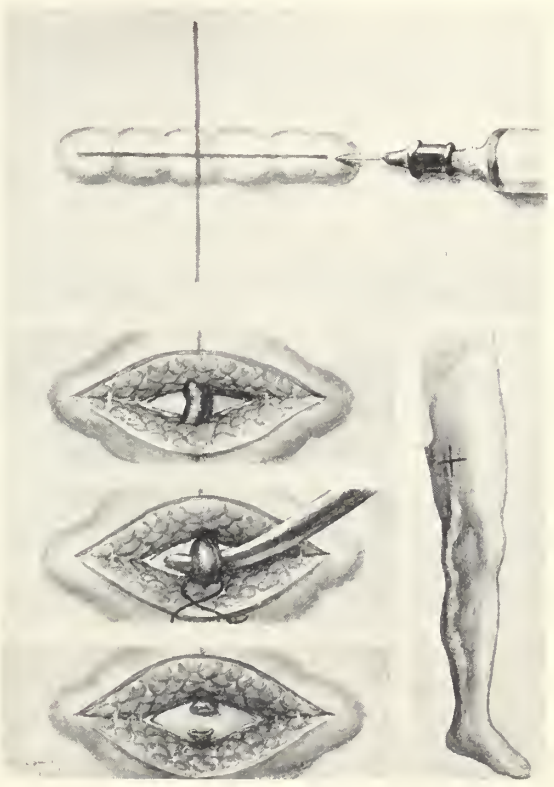


Fig. 2. Ligation: various steps.

is often trivial, one of the following happenings being responsible: (1) embolism, from some nidus of infection, as teeth, tonsils, hemorrhoids or furuncle, (2) trauma, and (3) pressure (as above indicated). The resultant necrosis sets up ulceration which is usually confined to the superficial cutaneous layers, but in the chronic states may increase in extent and depth, finally penetrating the entire dermis, eventually involving bone and there causing a reaction with the production of periosteal thickening. The base of a varicose ulcer is covered with edematous unhealthy-looking granulations; the margin becomes sclerosed, thickened and cornified, due to fibrous tissue formation and the epithelium exhibits no sign of in-growth. The bacterial flora is insignificant and has nothing to do with the chronicity of varicose ulcers; it is purely a matter of hydraulics.

Once ulceration has ensued, permanent damage has been wrought to the local circulation, and also especially to the cutaneous structures involved, by the initiation of a

Fig. 3. Unna casing applied, after elevation of lower extremity.

fibrosis making the area more vulnerable in the future.

The skin of the lower part of the leg sooner or later acquires a brown or brownish-black color. This is due to the deposit of pigment, consequent upon the escape and disintegration of red blood cells.

Before outlining treatment in any given individual, certain positive or negative facts must be disclosed by clinical approach. The recognition of these factors have been fully discussed and hold equally true in this condition. At the risk of repetition though, we feel it essential to mention: (1) estimation of peripheral circulation, (2) adequate return in the deep veins, (3) points of reflux and (4) to note the relative increase in venous pressure. In every varicose ulcer tributary varices leading both to and from the ulcer can be found. Some are invisible, many are visible, while others can only be detected as subcutaneous channels through the hard callous edema, by the finesse of experienced tactile sensation. Some even deny their presence; nevertheless, the veins are there.

From the foregoing discussion, it would seem apparent that if the affected veins and varices were obliterated and external support applied, upon the principle of counteracting the effects of gravitation by means of equable pressure, then healing of the ulcer would promptly follow. Such a conclusion is justified and the essential feature of the therapy is, as Wright has pointed out: "Put the hydraulics right and the ulcer will take care of itself." This is the efficient means of attack but refinements in surgical acumen must be developed since pitfalls await the unwary.

Ambulatory venous ligation is first carried out at the highest point and at all other site of reflux in order to relieve the hydrostatic pressure. At the same sitting, the varices that are intimately concerned with the ulcer are injected with a sclerosing solution, preferably above and below the broken-down area in order to obliterate these useless vessels and thereby promote rapid healing. If you will, the ulcer-base may be cauterized and silver nitrate is recommended; however, we feel this is unnecessary. The raised cornified rim or sclerosed margin of the ulcer is removed by means of dissecting forceps, when a definite depth of cleavage will be found and the layer peals off readily.

Then comes the dressing of the ulcer and support of the leg. This is effected by the application of an Unna paste casing or cast extending from the base of the toes to immediately below the knee. This procedure should be carried out with the patient in the recumbent position, the affected limb being elevated and the heel resting on a support. The prevention of the discharge from the ulcer may seem at variance with current and accepted views, but it is also known that ulcers hermetically sealed heal more readily than when treated openly and with antiseptics. It is probable that the bacteriophage of d'Herelle is thus allowed to prosecute its curative force, which, by the way, is the rationale of the Orr method of treating osteomyelitis. The Unna dressings are at first replaced once weekly and at correspondingly longer intervals as healing progresses. The patient is instructed to remove by means of soap and cold water any discharge which seeps through. In office practice, the support of the leg may be facilitated by the use of a zinc oxide rubber-base

spiral bandage which can be applied with a minimum of time and fuss. All round though, we have not found this article as eminently satisfactory as the Unna cast. In very large ulcers, skin grafting at suitable times is desirable. The hemoglobin is estimated, and no reliance placed merely on inspection of the conjunctivæ, and when low, massive doses of iron are exhibited.

It is important that the patient be up and about and to continue working. Probably the best form of recommended exercise to reduce the edema and promote circulation is cycling; next in order would be walking. A noteworthy fact, under this régime, is that the relief of pain and insomnia are pronounced from the first, which is a gratifying feature, as many of these mortals have suffered the tortures and terrors of the damned. In our experience the average varicose ulcer met with, irrespective of length of duration, can be healed solidly in six weeks.

SUMMARY

1. The signal advantage is that the treatment is ambulatory, obviating the loss of time from employment.

2. Striking and brilliant results are being regularly obtained.

3. Each individual patient calls for clear-cut surgical judgment.

4. We would stress the prevalence of varicose ulcer, and the intractability of the disease as heretofore regarded, as poignantly attracting attention to what is surely one of the most neglected diseases afflicting mankind.

And, finally, it is thus seen that we can, with this method, rescue some of the derelicts from what has been termed the "surgical dust heap."

THE USE OF BACTERIOPHAGE IN CERTAIN EYE DISEASES

L. F. CARTER, M.D.
DETROIT, MICHIGAN

d'Herelle's[3] discovery in 1916, of the phenomenon of bacteriophagy had the effect of setting to work scores of investigators and clinicians. So much has been written on the theory, origin, nature, and action of bacteriophage that in comparison, consideration of its therapeutic application seems to have been in the minority. To date, however, a sufficient amount of clinical data have been compiled by many investigators to cast aside all doubts as to its therapeutic value in certain types of dysentery, infections by the colon bacillus, stapylococcus and others.

With the view to improvement of the frequently recurring circumscribed superficial marginal keratitides so frequently encountered among the adult colored class of clinic patients, subcutaneous injection of bacteriophage was instituted as a routine treatment. In the beginning it was used in conjunction with local treatment of the keratitis but later with the desire for a more specific test of its therapeutic value bacteriophage subcutaneously was used at the exclusion of all other treatment. The end-results were quite similar; in some spectacular recovery was noted and in others there was sufficient improvement to warrant a thorough clinical trial over a long period of time.

Later the similarity between circumscribed superficial marginal keratitis in adults and phlyctenular keratitis in childhood, as to racial characteristics, objective appearance, and subjective symptoms, suggested the rationale of the use of bacteriophage in phlyctenular cases also. The apparent beneficial effects of bacteriophagy here again were demonstrated although less impressive, since phlyctenulosis has a tendency to spontaneous improvement.

Other forms of keratitis (dendritic, ulcer of cornea, etc.), as well as a few other ophthalmic conditions were similarly treated by bacteriophage subcutaneously with varying degrees of success (Table I).

In this series of cases a polyvalent bacteriophage, a combination of staphylococcus and colon bacillus phages prepared under the direction of N. W. Larkum of the State Department of Health at Lansing, Michigan, was used.

Early in the use of the bacteriophage in

*Dr. Carter is a graduate of the University of Pennsylvania A.B.; M.D. 1924; special training in Massachusetts Eye and Ear Infirmary, 1925-26. He is on the staff of the Receiving Hospital, Woman's Hospital and North End Clinic. He is clinical instructor, Detroit College of Medicine.

TABLE I

DIAGNOSIS	No. Cases	Color				EYE		PER CENT OF IMPROVEMENT									
		W		C					1-4 days	5-7 days	8-14 days	3 wks.	4 wks.	8 wks.	Total	Some	None
		M	F	M	F	O. D.	O. S.										
Chalazion	6	4		2		3	3	Marked	16.6	33.2	16.6				66.8		33.2
								Healed		16.6					16.6		
Hardeolum	2	1		1			2	Marked	100.						100.		
								Healed	50.						50.		
Phlyctenular Kerato-conjunctivitis	11	2		2	7	5	7	Marked	18.1	9.	18.1	9.			91.		9.
								Healed		9.	27.2	9.	9.	9.	63.5		
Phlyctenular conjunctivitis	11	2		3	6	7	7	Marked	18.1	27.2					91.	9.	
								Healed	9.	27.2	27.2				63.4		
Phlyctenular Keratitis	9		2	2	5	7	3	Marked	11.1	44.4		11.1			88.9		11.1
								Healed	11.1	33.3	11.1	22.2	11.1		88.9		
Marginal Keratitis	26	4	2	13	7	11	17	Marked	30.7	19.	7.6	3.8			84.8	11.4	3.8
								Healed	3.8	19.	30.7	3.8	7.6		65.3		
Marginal Kerato-conjunctivitis	15	4	2	6	3	12	8	Marked	26.4	19.8	6.6				73.6	6.6	19.8
								Healed		26.4	39.6	6.6			73.6		
Keratitis (Ulcer) (Trachoma)	25	7	7	7	4	6	17	Marked	32.	4.	4.			4.	66.	16.	28.
								Healed		12.	16.	12.			40.		
Dendritic Keratitis	5	4		1		2	3	Marked	20.	20.		20.			80.		20.
								Healed			20.	40.	20.		80.		
Iritis	4	1	1	1	1	1	3	Marked		25.	25.				100.		
								Healed		25.	25.		25.		75.		
Irido-cyelitis	2	1		1		2	1	Marked	50.						50.	50.	
								Healed				50.			50.		
Episceleritis	3		2		1	3		Marked									100.
								Healed									
Conjunctivitis	1		1				1	Marked	100.						100.		
								Healed	100.						100.		
Marginal Ulcerative Blepharitis	4	1	1	2		3	4	Marked	25.							50.	25.
								Healed		25.							
Total	124	31	18	41	34	62	76										

this series 1 c.c. was given subcutaneously in the upper arm and if no improvement was noted in three days a second injection was given. In infants and early childhood 0.5 c.c. injections were used, older children receiving the usual adult dose. Later it was found necessary in some cases to repeat the injection several times. Since there was seldom more than a mild local reaction at the point of injection this treatment was routinely stepped up to 1 c.c. every other day and in more severe or obstinate cases 1 c.c. every day. Occasionally in adults where there was none or only slight improvement after a series of injections of 1 c.c., several injections of 2 c.c. were given.

This series of cases does not represent the entire number to whom phage treatment was administered, only those cases which were seen more than one time and upon whom some follow-up was possible were recorded for obvious reasons to afford a check on the merit or demerit of the treatment. It should be borne in mind, however, that these were all *free* clinic patients and that most of those cases that failed to return after one visit did so possibly because they felt sufficiently improved as to regard a second visit unnecessary.

The polyvalent or "stock" bacteriophage as used in this series, while theoretically not the ideal, yet from a practical point of view it must suffice since it would have been impossible in the vast majority of cases to isolate the offending organisms and test them for phage lysis before instituting treatment. It is the opinion of Rice[7] in reporting 90 per cent excellent results in 300 suppurative conditions that stock preparations (B. coli and various strains of staphylococci) were apparently as good, except in a few cases, as those specifically prepared.

Gratia[5] found in the treatment of staphylococcus infection that subcutaneous injections at a distance from the lesion were equally as good as the local application of the phage. Injection, as against the local applications, was the method of choice in this series. The number and frequency of injections in no way seemed to increase the patient's susceptibility to phage reaction nor in the absence of improvement was there any aggravation of the disease directly attributable to the phage treatment. In many cases an injection of 1 c.c. of bacteriophage was all that was required; however, the average was 3 injections of 1 c.c. each. Very probably, as shown by a large number of the cases in the early part of the series, many of the more recent cases receiving five to seven injections would have done equally well with one to three injections. Previous treatment of a case with bacteriophage did not protect against the recurrence of the condition. Seventeen recurrences were recorded in this series, the response to bacteriophage during the subsequent attacks being similar, except in four cases, to that noted in the initial series of injections. Daily injections seemed to have little advantage over those given every other day and a case failing to respond to 1 c.c. injections showed little change with 2 c.c. injections.

While it is not proposed to set down here a lengthy discussion of the theory of bacteriophage, some of the more likely possibilities of its action are:

(1) A lytic agent capable of destroying the offending organisms (d'Herelle[3]).

(2) A bacterial cultural filtrate, "antivirus," containing a substance which inhibits growth of the bacteria and is specifically antagonistic to its virus (Besredka[2]).

(3) Bacterial dissociation incited by the presence of the lytic agent with resulting alteration in the virulence of the invading bacteria (Hadley[6]).

(4) The effect of the stimulation of the tissues by peptone broth (Friedlander and Toomey[4]).

(5) The action of the lysed soluble bacteria protein in the solution (Arnold and Weiss[1]).

Improvement in the subjective symptoms frequently occurred before the appearance of objective change in the lesion. In some cases there was lessening of the photophobia in a few hours and in many cases within a twelve-hour period. This might be explained by the early destruction or neutralization of the causative agents, whereas the reaction of the tissue to repair would of a necessity require a longer period of time. Occasionally a case would show some improvement in the early course of treatment, only later to relapse or recur and fail to respond to the treatment. Here, as in those cases that showed no response whatever, it would be logical to assume that the phage used was not specific for the causative organisms, that the organisms early developed into a phage resistant strain, or that the tissue destruction was of nutritional or metabolic rather than infectious origin.

TABLE II

Diagnosis	No. Cases		1-4 days	5-7 days	8-14 days	3 wks.	4 wks.	8 wks.	Total	Some	None
Phlyctenulosis	31	Marked	16.1	25.1	6.4	6.4			90.2	3.2	6.4
		Healed	6.4	25.1	22.5	9.8	6.4	3.2	74.1		
Marginal Keratitis	41	Marked	29.2	19.5	7.4	2.4			80.6	9.7	9.7
		Healed	2.4	21.4	33.8	4.8	4.8		68.2		
Keratitis	30	Marked	30.	6.6	3.3	3.3		3.3	60.1	13.3	26.6
		Healed		10.	16.6	16.6	3.3		46.6		

Phlyctenulosis: Phlyctenular conjunctivitis, phlyctenular keratitis, phlyctenular kerato-conjunctivitis.
Marginal Keratitis: Circumscribed superficial marginal keratitis.
Keratitis: Corneal ulcer, dendritic and parenchymatous keratitis, keratitis in trachoma.

The experience obtained from the treatment and observation of these 124 cases brings out both advantages and disadvantages in the use of bacteriophage.

Advantages:

1. Early relief of subjective symptoms, photophobia, lacrimation, etc.
2. Marked improvement occurred in about one-third of the cases in one to four days and in the majority of the cases in one to seven days.
3. Three-fourths of the cases recorded as "healed" fell within the period of one to fourteen days.
4. Prompt response to bacteriophage after failing to respond to previous local treatment.

Disadvantages:

1. The inability to obtain cultures and lysis of the offending organism before instituting treatment.
2. Failure to protect against subsequent recurrence of the disease.
3. Unequal response to treatment where there has been a recurrence of apparently the original pathology.
4. Dissimilar results in similar cases.

Many other conditions of the eye and its adnexa could be suggested for bacteriophagy treatment and very probably show an even more convincing percentage of recoveries than has been demonstrated in this series of cases.

SUMMARY

1. The cases in this series were treated with a polyvalent bacteriophage of staphylococcus aureus and B. coli. The average dose was 1 c.c. subcutaneously for three injections every other day. In the majority of cases no other treatment was used.

2. Of the three large groups (Table II) phlyctenulosis (phlyctenular conjunctivitis, keratitis, and kerato-conjunctivitis) showed the largest percentage of marked improvement (90.2 per cent), of healed cases (74.1 per cent).

3. Keratitis (dendritic, ulcer of cornea, etc.) produced the largest percentage of failures (26.6 per cent).

4. About one-third of all the cases in these groups showed marked improvement in one to four days and three-fourths of the healed cases fell within the period of one to fourteen days.

While so small a series of cases is not conclusive the percentage of improved and healed cases is far in excess of the failures. It is not suggested that bacteriophagy be used at the exclusion of other tried and good treatment, but as an additional procedure to be used as an aid to the patient's comfort and recovery.

BIBLIOGRAPHY

1. Arnold and Weiss: Jour. Laboratory & Clin. Med., 12:20, 1926.
2. Besredka: Local Immunization. Baltimore, Williams and Wilkins Company, 1927.
3. d'Herelle: The Bacteriophage and Its Behavior. Baltimore, Williams and Wilkins Company, 1926.
4. Friedland and Toomey: Jour. Exper. Med., 47:663, 1928.
5. Gratia: Compt. rend. Soc. de biol., 86:276, 1922.
6. Hadley: Infectious diseases. 40:1, 1927.
7. Rice, T. B.: Am. Jour. Med. Science, 179:345-360 (April), 1930.

SCOPOLAMINE ALONE FOR THE RELIEF OF PAIN DURING LABOR*

LEWIS E. DANIELS, M.D., F.A.C.S., and F. W. TAMBLYN, M.D.
DETROIT, MICHIGAN

The ideal obstetric anesthetic is one which accomplishes the following results:

1. It gives relief of plain during the first stage of labor without inhibiting uterine contraction.
2. It gives relief of pain during the second stage of labor without inhibiting either uterine contraction or the secondary forces.
3. It does not anesthetize nor narcotize the baby. There must be no deleterious effect upon the baby.

In our search for an anesthetic which accomplishes these three results, we have used the various agents—ether, nitrous oxide and oxygen, ethylene gas, morphine and magnesium sulphate, morphine and scopolamine combined, colonic ether and sodium amytal. Each of these agents has its advantages, but they all appear to have a common disadvantage, namely—if sufficient amounts are used to give the mother relief, they also produce an anesthetic effect on the baby. There is nothing more distressing to the obstetrician than to deliver a narcotized or anesthetized baby which requires a half hour's resuscitation before normal breathing begins. Scopolamine, in our opinion, has all the advantages without any important disadvantages.

The principal disadvantage of twilight sleep as originally used was the large number of narcotized babies produced. This condition was due entirely to morphine and not to scopolamine.

The method used in this series, with slight variation, was that originated and employed by Doctor Bertha van Hoosen in 1927.

As soon as the patient is in definite labor with pains recurring every five minutes and the cervix is 2 to 3 cms. dilated, or beginning to dilate, the first injection of scopolamine is given. One 1/100 of a grain is given every half hour for 3 doses, and then one 1/100 grain every two hours. After the first injection, the patient voids, the ears are plugged with cotton, the window shades are drawn. The relatives are instructed to stay out of the room and the sides of the bed are drawn up or side-boards used to prevent the patient from getting out of bed. All noise, as far as possible, is eliminated and only necessary examinations made. The bladder is carefully watched for distention.

At the first injection, the temperature is taken and the pulse is recorded with each injection. The final recording of the pulse is made by the anesthetist at the time of delivery. Scopolamine hydrobromide gr. 1/100 is given to the patient every two hours and even though she may be ready for delivery, the dose is given. This is important since it may mean the difference between a perfect and an imperfect result. There is very little in the literature concerning the use of scopolamine alone as an analgesic in obstetrics. Dr. van Hoosen's article first appeared in *Anesthetic-Analgesia* (May-June), 1928.

Quoting from Dr. van Hoosen:

> "These advantages, shortening labor and decrease in the amount of blood lost post-partum, are certainly very much to be desired, and would seem sufficient to attract the attention of obstetricians to scopolamine—narco anesthesia. But we have added to these advantages an anesthesia that may be safely prolonged for sufficient time to cover any delivery. (We have kept patients under this anesthesia for fifty-seven consecutive hours), and not only that but an anesthesia that combines perfect unconsciousness of the surroundings with increased activity of the involuntary muscles so necessary for the delivery of the parturient woman. It certainly gives the obstetrician an ideal anesthetic."

Jennings reported twenty-four cases in the *British Medical Journal* in 1929 in which the van Hoosen technic was followed and Asbury Summerville reported twenty-eight cases in the *Canadian Medical Association Journal* in 1929. Both of these reports show excellent results with perfect amnesia in about 85 per cent of the cases.

*From the Department of Obstetrics, Woman's Hospital,

In our series, we have studied 453 patients of which 338 are primiparæ and 115 are multiparæ. There were 138 staff patients and 315 private patients, so that patients from all walks of life are included in the series. While several members of the obstetric staff furnished about half of the patients in this study, there were altogether patients of sixty-two private physicians included. The age limit varies between fifteen years and forty-three years. The length of labor varies from three hours to sixty-six and one-half hours, the average being eighteen hours and fifty minutes for primiparæ and eleven hours for multiparæ. Four cases of primiparæ had labors of forty-nine, fifty-one, fifty-six, and sixty-six hours respectively, raising the average considerably. A good number were between thirty and forty hours in labor. The average second stage for primiparæ was two hours and twenty-five minutes. The average second stage for multiparæ one hour.

The blood pressure readings were obtained in 100 patients. In no case was there a dangerous fall in blood pressure or a marked elevation. Several cases of hypertension showed a drop of 30 to 40 millimeters in systolic pressure during labor. One patient with pre-eclamptic toxemia had a blood pressure of 184/132 when scopolamine was started and just prior to delivery —the pressure was 155/112. Blood pressure readings were checked just before scopolamine was given—then after the third dose was given, and finally just before delivery. After the three doses of scopolamine are given, the blood pressure is 10-20 m.m. lower but by the time the patient is ready for delivery, the blood pressure is up to normal or a little above what it had been. There were no dangerous falls in blood pressure post-partum.

The pulse rate under scopolamine usually increases, but it may decrease. In 90 per cent of the patients, the pulse rate increased; in 10 per cent it was decreased. In a few instances, it remained unchanged. The greatest increase in pulse rate was from 100 to 160. The average increase was 22.

After delivery, the pulse in practically every patient returned to normal within one hour, and the patient could be transferred to her room. In order to prolong analgesia and amnesia, morphine grs. ¼ was given with pituitrin as soon as the baby was born. The morphine aids in the slowing of the pulse also. In several patients, the pulse persisted above 100. In one, a young girl aged nineteen, low forceps delivery, eighteen hour labor, pulse persisted at 136 for twelve hours. Another patient had a pulse of 124 for twenty-four hours. Another patient with cardiac disease had a pulse of 160 for twelve hours which gradually returned to below 100 in thirty-six hours. There was no apparent reason for the persistent high pulse in the first two cases mentioned.

Blood loss for the whole series of 453 patients averaged 240 c.c. estimated. There were sixteen patients who lost 500 c.c. each, eight of whom had spontaneous deliveries. There were six forceps deliveries in this group, two cesarean sections. All of these patients had either ether or nitrous oxide and oxygen during the second stage of labor. There were three patients who lost 600 c.c. of blood. One lost 700, three lost 800 and two lost 1,000 c.c. each. One patient who lost 1,000 c.c. had a retained placenta following a twenty-two-hour labor.

In none of the cases of postpartum hemorrhage could the bleeding be attributed to the use of scopolamine. Each one of the patients had either ether or nitrous oxide and oxygen for the delivery. The smallest amount of blood loss was 50 c.c. In every instance, the condition of the mother throughout labor was good with one exception in which there was evidence of shock present following a postpartum hemorrhage of 800 c.c. This patient had been in labor sixteen hours and was delivered with mid-forceps under nitrous oxide and oxygen anesthesia of forty-five minutes. She had had four 1/100 gr. doses of scopolamine.

Patients under scopolamine must be induced to take fluids, and in most cases they take them readily and seem to want them. If labor lasted over a period of forty-eight hours or more, intravenous-glucose solution was given. After the third hypodermic and more often after the second, the patient will go to sleep and wake up only with her pains. The face becomes flushed, the lips dry, the pupils are dilated and her hair more or less tousled. Many patients will lie rather quietly in bed, will moan a little or turn from side to side. Others become rather restless, sit up with their pains—cry out—roll from side to side, and when the pain is

over, they will go back to sleep. Several patients got out of bed, but no patient injured herself in any way. Many of them assume perfect knee-chest positions. Some will pick at imaginary things before them and nearly all will pick at the bed clothes. They often take off their gowns. They talk in a rapid, incoherent way of bridge games, about cooking and other housework, about color of wall paper. They mention refrigerators, airplanes and speak of their husbands. To some, everything appears to have a vivid red color. Many of them have flight of ideas and it seems that their subconscious mind has gained control.

In the delivery room, it is advisable to use a table which will secure the legs in comfortable leg holders and the hands are secured at the sides so that the sterile goods cannot be disturbed. We have a specially designed Restraint sheet which has been of great value in keeping the patient at the end of the table in position. This makes it unnecessary to use shoulder braces which become a source of danger to a patient who may thrash around on the table. The patients are thus secured in position with buttocks at the end of the table, the legs secured and the hands secured ready for either normal or operative delivery. The patients are always in proper position then for inspection after delivery and any necessary repair work.

Anesthesia—gas or ether was used in most cases, but many deliveries were done with no anesthesia other than scopolamine. Several low forceps and episiotomies were done with no anesthetic. One episiotomy was done under local, and it worked out fairly well. Several multiparæ have been delivered without anesthesia. The patients are quite restless in some cases and have to be restrained. However, in several cases when patients had colds and no general anesthetic was deemed wise, scopolamine alone furnished complete amnesia and analgesia. The patient will resist anesthetics, and it is sometimes rather difficult to put the patient under ether.

If inhalation anesthesia is given for the delivery, ether seems to be preferable to nitrous oxide and oxygen in that it has no apparent effect upon a baby whose mother is under scopolamine anesthesia. The amount of ether used in this series varied from 10 c.c. to 400 c.c., the average being about 100 c.c.

The effect of scopolamine upon the infant is rather striking. In the usual non-operative case or a low forceps delivery, the baby is activated at birth. It appears to be stimulated and undoubtedly is from the effect of the scopolamine. Its color is usually pink and it crys immediately after birth. If cyanotic at birth, the color is very soon pink because of the quick response to external stimuli and the early breathing and spontaneous cry. Muscle tone is nearly always excellent. In fact, the baby is rather tense. It is never narcotized unless an operative delivery has been performed and an inhalation anesthesia has been used. Of the 453 babies born, 412 cried immediately upon birth and were in excellent condition. Thirty-three babies in this series required resuscitation and in most of these the operative procedure or inhalation anesthetic was responsible.

Two resuscitations occurred following version and extraction. There were three resuscitations following manual rotation of the head, one of which had a fifty-nine hour labor. Two resuscitations occurred after hard forceps, the mothers receiving 7/100 and 11/100 gr. scopolamine respectively. One resuscitation occurred in a baby whose head was pounding on the perineum for five hours. Four resuscitations occurred as follows: One after an easy low forceps, one for no apparent reason, one after 19 hours normal labor, and the other after a thirty-seven-hour hard labor.

There were eight stillbirths in the whole series of 453 babies. Two of these were monsters and two non-viable premature fetuses. The remaining four stillbirths were due to disporportion, two of which were breech extractions of large babies and one a version and extraction of an 11 pound, 4 ounce baby after failure of Keiland forceps in O.L.T. with high arrest of head.

There were 235 normal deliveries, 164 low forceps deliveries, thirty-one mid-forceps, one high forceps delivery. Ten breech extractions, six internal podalic versions and extractions, and six cesarean sections. The forceps deliveries include a rather large number of low perineal forceps which were done on staff patients as academic forceps deliveries and a considerable number of prophylactic forceps by members of the hospital staff. Manual rotation of the head was performed seventeen times.

The average dose of scopolamine was

5 1/100 gr. The smallest dosage given which resulted in complete amnesia was 2 1/100 gr. and the largest dose used in this series was 21 1/100 gr. The twenty-one doses were used in a patient kept under scopolamine for forty hours. She entered the hospital in labor Saturday and was delivered Monday. When she awoke she had lost a whole day. Hyosine hydrobromide was used in tablet form instead of the more expensive scopolamine in ampoules in the majority of staff and ward patients. The results did not differ from those with scopolamine.

The amnesia and analgesia produced in this series was as follows: 349 patients or 77 per cent had complete amnesia and analgesia and these patients remembered only two or three hypodermics, then became unconscious and knew nothing of the labor or delivery. They woke up several hours after delivery to realize that the abdomen was flat and the baby born.

Fifty-six patients or 12 per cent had almost complete amnesia and good analgesia. They remembered two or three hypodermics, the trip to the delivery room or the ether mask and in most cases that was all. Thirty patients or 6½ per cent had fair results. These were patients who remembered considerable of what happened and their pains were only partially relieved.

Eighteen patients had poor results or failed entirely to receive relief. They remembered everything and the pains were severe.

Some patients appear to have a greater tolerance for the drug than others, but in many of the failures, the hypodermics were not started until labor was well advanced and the patient had suffered severe pain prior to the beginning of the treatment. Multiparæ whose labors are short occasionally are too far advanced in labor at the time they reach the hospital to receive much relief. It requires about one hour to put a patient under scopolamine. One patient in her first labor of fifty-one hours developed a tolerance after the first ten doses of the sixteen were given and during the last twelve hours of the labor was perfectly rational and remembered everything that happened. This patient has since been delivered a second time when she had a five and one-half hour labor and 4 1/100 gr. doses gave her complete amnesia and analgesia.

In three patients, labor seemed to be delayed by the treatment. These patients were given scopolamine when pains were good and strong, and then the pains seemed to become weak. Scopolamine was stopped and pains again became severe. When scopolamine was again started the contractions again became weaker.

There were no undesirable results postpartum. Temperatures were as normal as in other patients who had not had scopolamine. Some patients complained of soreness of the muscles 24 to 36 hours postpartum which was attributed to thrashing around in bed and to straining on the delivery table.

In addition to its effect on the central nervous system, that is the production of sleep, and a state of unconsciousness, we believe that scopolamine by its action on smooth muscle relaxes the cervix and a more rapid dilatation of the cervix ensues. Two cases are cited to illustrate this effect.

A primipara, aged twenty-five, weight 100 pounds, with a generally contracted pelvis, but a small baby had been in good hard labor fourteen hours. The head was still high at station minus 2 and cervix dilated only 4 cms. Cesarean section was considered, but it was decided that the patient be given a further trial of two or three hours under scopolamine. Scopolamine was started in the usual manner and the patient very shortly began to make progress and was delivered of a six pound baby spontaneously five hours after scopolamine was begun—the head rotating from an occiput right posterior position.

Another primipara, aged thirty-four, large, heavy-boned woman, typical D.D.S. type with a large baby had been in labor eighteen hours—head still above the pelvic brim and cervix dilated 4 cms. Scopolamine was advised and started and patient delivered five and one-half hours later with low perineal forceps. This also was an occiput right posterior position which rotated spontaneously.

We present the following case to show that scopolamine does not harm the baby even when given at more frequent intervals:

A primipara, aged twenty-five, flat pelvis, large baby, went into labor with head floating. Scopolamine started at 7:00 P. M. in usual manner, but after the initial three doses had been administered, by mistake the patient got scopolamine 1/100 gr. every hour for four more doses. This mistake was discovered at midnight and patient given 1/100 gr. every two hours from midnight until noon next day when she was delivered with Keilland forceps. Baby cried spontaneously and patient awoke at 7:00 P. M. not knowing baby was born—a complete amnesia of twenty-three hours.

ADVANTAGES OF THIS METHOD

1. It is easy to give and more sure than any drug given by mouth.

2. It is safe for both the mother and baby, babies being born in an excellent activated condition in almost every case.

3. It insures a painless labor in 85-90 per cent of the cases.

4. There are no bad after results to mother or child.

5. It shortens labor.

DISADVANTAGES

Like all procedures, there are some disadvantages, but they affect the doctor and nurses rather than the mother and her baby:

1. Some patients are very restless and this often causes considerable anxiety to the relatives.

2. The patients must be restrained in order to maintain sterile technic.

3. It takes from one-half hour to one hour to put the patient to sleep using this method.

4. The patients occasionally try to get out of bed but they do not hurt themselves.

5. Patients under scopolamine should have the constant attendance of a nurse, but this should be a requirement in every labor, in a well equipped maternity hospital.

SURGERY IN GOITER

JERRY M. JONES, M. D.
BAY CITY, MICHIGAN

The ordinary person harbors the fear that a tumor in any part of his body except his neck might "turn into something." Many lives would be saved if this fear were shared by those having thyroid enlargements. Not only do the hyperplasias and the degeneration eventually shorten lives, but the matter of carcinoma is also of vital consideration.

In discussing goiter so many classifications occur that it is imperative to give one specific classification in order to facilitate a correct interpretation of the terminology and phraseology. The following is a classification well suited to the cases commonly seen in the Michigan section.

1. Colloid, the type predominating in adolescence.
2. Adenoma. The adenomata are the commonest type of goiter in this section. Their classification depends on whether they are described for their pathological features or for their anatomical or surgical characteristics, such as size, location, cystic, colloid, degenerating, calcerous adenomata. The calcareous represents the final effort of nature to conquer the goiter disease, as MacCarty expresses it.
3. Hyperplastic goiters (with increases in metabolism) with or without exophthalmos.
4. Carcinomatous goiters.
5. Acute or chronic inflammations, such as acute thyroiditis and syphilis.

OF INTEREST IN THE LITERATURE OF 1931

Pemberton mentions that 87 per cent of carcinomas of the thyroid develop on already existing adenomata.

Lahey simply describes and defines one type of adenoma, the substernal, as that in which the greatest diameter of an adenoma is below the top of the sternum.

Charles Mayo, 2d states: "There is no casual relationship between the toxic goiter and the complicating disease." This substantiates the practice which we have followed in this clinic since 1919, of eliminating focal infections, which we have ever since believed to be the etiologic factor in producing many of the toxic symptoms concurring with "degenerating" toxic goiters.

Parker significantly quotes Enderlen: "The recurrence of goiter depends not only on the type of operation but on the type of gland." This point is well made, for it has been our experience that a recurrence appears most frequently in those cases where there have been innumerable adenomata of all sizes.

C. H. Mayo has often remarked in his clinics that "the majority of these women come for operation because of the size of the goiter." It is indeed fortunate that the disfigurement of the external swelling induces many people to come for operation before the goiter "turns into something." There is the occasional development of a carcinoma in a goiter. In the adenomata, after degeneration, and in hyperplasia of the thyroid, there is the ever present contingency of cardiac damage.

The mortality in goiter cases is inversely

*Dr. Jones graduated from the Michigan College of Medicine, 1896. He is chief of staff, Bay City Samaritan Hospital and the Jones Clinic. He limits his practice to surgery.

proportional to the intelligence of the community, for when education shows the danger of neglect and the advantage of proper treatment and surgery it is evident that subsequent damage to the remote organs can be controlled.

Fig. 1. Line of incision higher and therefore slightly shorter than ordinarily made by standard Kocher technic.

In this series of 515 consecutive operative cases of every type which have come to our clinic the mortality was less than 1 per cent. The fact that many of these patients had come for treatment several years after serious complications had ensued was not always their own fault, since they so often came from localities where the modern methods of treatment were not known, or carcinoma had already developed by the time they first consulted their family physician.

One point worth bearing in mind is this: Carcinoma of the thyroid attacks one portion first such as one lobe or the isthmus and within six months may assume the size and shape of a dill pickle (10 cm. or 4 in.). Metastasis in the spine and chest should be considered and determined by the x-ray in suspected cases.

PREPARATION

In the hyperplastic cases the routine treatment of giving iodine with potassium iodine (Lugol's solution, 10 to 60 minims daily) for ten days prior to operation, as first suggested by Plummer, has proven of great value. It can also be stated that the continuation of this treatment for a necessary number of months after operation is valuable in checking hyperthyroidism.

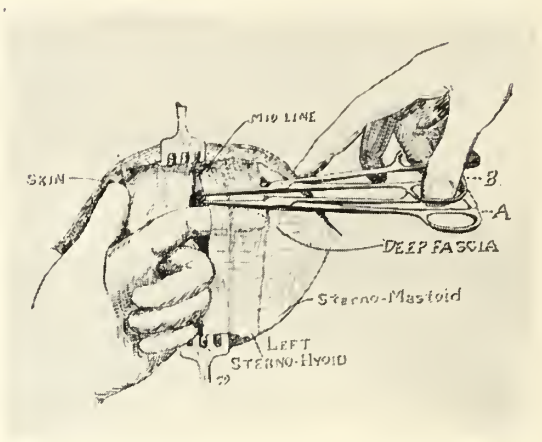


Fig. 2. In applying the haemostatic forceps to the sterno-hyoid muscles according to the technic described, the lower at *A* is applied first, pushing it through the deep fascia. Second, the forceps at *B* are likewise applied and above the other. The sterno-hyoid muscles may now be cut between the forceps and each segment retracted from the field of operation.

SPECIAL TREATMENT AFTER OPERATION

The standard practice of giving small effective doses of morphine and one or more of atrophine during the first twenty-four or forty-eight hours, and the additional use of ice bags with or without morphine if the temperature rises above 101 degrees, aids greatly in the relief of bronchial secretion and general restlessness, practically assuring the patient a calm postoperative recovery.

RECENT IMPROVEMENTS IN TECHNIC

In the days when dresses were fitted with high collars it became the custom to make a low incision. But now, since the entire neck is disclosed, a higher yet shorter incision can be made over the middle and more slender part of the neck; a slight necklace will hide the incision during the first few months until the scar resumes the normal color of the skin. The location of "the necklace line" is readily learned by the surgeon (Fig. 1).

In any operation, exposure is the factor which makes the work easy or difficult. Exposure is greatly facilitated by giving special attention to the manner in which the muscles in the front of the neck are turned back.

The method illustrated in Figures 2, 3, 4 shows a technic whereby the handles of the

forceps which grasp the sternohyoid muscles are kept out of the field of operation by introducing them from the sides instead of from the center line, as ordinarily practiced.

Fig. 3. Reproduction of a photograph, retouched to bring out the advantages of exposure with all the handles of the forceps turned away from the field of operation.

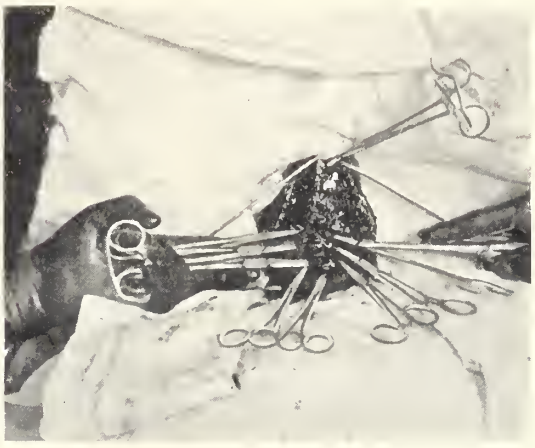


Fig. 4. Reproduction of a photograph retouched to show the advantages of technic described: a well exposed field.

The remainder of the operation is done after standard technic, using due care at the poles of the gland to introduce all sutures, for hemostatic purposes, parallel to the inferior (recurrent) laryngeal nerves (substantially vertically) in order to avoid their inclusion in the suture. Forceps at that site are applied with a vertical bite for a similar reason. The posterior portions of the gland ("capsule") are not encroached upon to minimize injury to the parathyroid glandular tissue. Exposure of the trachea with resulting damage to its circulation, causing exudative tracheitis, is easily avoided by leaving some glandular tissue present at that site.

Fig. 5. Photograph showing early appearance and level of wound while pink line of healing is still visible (eighth day).

SUMMARY

A description is given of a variation of technic for thyroidectomy with observation on the different types of goiter in which it has been used; likewise the technic of a higher, shorter incision and that of applying the muscular hemostatic forceps with the handles extending laterally out of the way.

CONCLUSIONS

It is desirable to increase further the factor of safety in thyroidectomy by improvements in technic. Better exposure gives better results. The method shown improves the exposure in this already highly perfected operation, thyroidectomy, which will therefore accrue to the benefit of the patient, the all-important consideration.

BIBLIOGRAPHY

1. Lahey, Frank H.: Surgical management of intrathoracic goiter, S. G. O., 53: no. 3 (Sept.) 1931.
2. Mayo, Charles 2d.: The importance of toxic goiter complicating or complicated by other conditions requiring surgical interference. Minn. Med., 14:254, (March) 1931.
3. Parker, Morris L.: Technic of thyroidectomy. S. G. O., 52:238-44, (Feb.) 1931.
4. Pemberton, J. de J.: Report of surgery of the thyroid gland and spleen for 1930. Proc. of the Staff Meeting of the Mayo Clinic, 6:151, (March 11) 1931.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

TYPHOID FEVER OUTBREAKS

August and September are recognized as the usual peak months for the seasonal incidence of typhoid fever. The reported cases this year have been well below the incidence of last year and no outbreaks occurred until August. During that month three outbreaks in widely separated areas came to the attention of the State Health Department.

The first outbreak to be learned of occurred in Barry County. There were approximately 12 cases, all among a group of people who had formed the custom of meeting weekly—alternating at the homes of the various members. It appears evident that some article of food was the mode of transmission although as yet neither the mode nor the source have been definitely established.

The next outbreak to occur was in the cities of Alma and St. Louis. Here the fact was soon established that milk from a certain dealer had been contaminated by a carrier in the person of an employee who had recently come to the dairy farm. A total of seven cases of typhoid fever has been reported as a result. It is needless to say that the milk in question was not pasteurized.

The third outbreak occurred in Monroe and a nearby community along the shore of Lake Erie. Here again milk was the mode of transmission and the evidence soon pointed to milk from one farmer. This farmer had sold part of his milk retail in the vicinity of his home to neighbors and those in cottages vacationing on the beach. The rest of his milk had gone through the regular channels to a dealer in Monroe who collected milk from nine other producers and retailed raw. This outbreak accounted for at least twenty-five cases, all of which gave a history of using milk either directly from the producer in question or the dealer who took his surplus milk. This milk supply was cut off as soon as suspicioned and the dealer resumed his trade with pasteurized milk after eliminating the producer whose milk had evidently borne the infection.

The source of the Monroe outbreak has not been definitely established at the time of this writing but it is thought to be due to one of two persons who had had typhoid about one month previous to the outbreak and are related to the producer in question.

These three outbreaks, two of which are milk-borne, again emphasize the oft repeated warning that pasteurized milk is safest and that typhoid as we now find it is largely the result of carriers contaminating milk or other food supplies.

C. D. B.

DIPHTHERIA CASES

Diphtheria continues its trend of the last three months. Although the number of cases reported is much below the last five years' average, it has persisted now for some time at a level somewhat above last year's low record.

LABORATORY SERVICE

The discontinuance of the Kahn test, made necessary by the curtailment in budget of the Department, has apparently given rise to some misunderstanding. The Department has not discontinued diagnostic laboratory service for the control of communicable diseases, with the exception of serum diagnosis of syphilis. Other service is available as in the past.

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M.D., Chairman.....Ann Arbor
A. S. BRUNK, M.D.....Detroit
J. E. McINTYRE, M.D.....Lansing

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

NOTICE TO CONTRIBUTORS

Owing to the limitation of space, preference will be given brief articles.

Manuscripts should be typewritten, double spaced, on one side of white paper 8½x11 inches. There should be a margin of 1½ inches on the left side of page.

All photographs should be clearly focused prints on glossy paper (do *not* send negatives). The standard 8x10 or 5x7 size prints are recommended.

All line drawings (charts, diagrams and sketches) are to be drawn with India ink on stiff white paper or Bristol board. Drawings are to be made with pen lines of suitable thickness to allow reduction to the width of one or two columns, as the case may be, of the Journal. Do *not* send drawings in colored ink.

Illustrations will not be accepted unless they reach a certain standard of excellence technically and present an attractive appearance. Illustrations, both photographs and drawings, are to be separate from the text. These each should be labeled on the back with the Figure number, legend, title of paper and the author's name.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

EDITORIAL . . . . . .

OCTOBER, 1933

THE PRESIDENT OF THE MICHIGAN STATE MEDICAL SOCIETY

The annual meeting of the Michigan State Medical Society almost invariably held in September, witnesses a change of president. As is well known the President of the Michigan State Medical Society is elected by the House of Delegates. This

DR. GEORGE LEFEVRE, MUSKEGON, PRESIDENT OF THE MICHIGAN STATE MEDICAL SOCIETY FOR 1933-34

was not always the custom. Up to within recent years the president was elected by the members at large. Theoretically, and practically too, the recent vogue has its advantages. The president serves a year as president-elect, during which time he has ample opportunity to observe and study the policies of the Society before assuming the actual responsibility of office.

Dr. J. M. Robb, whose term of office has just expired, retires with the universal gratitude of the Society for his untiring efforts in its behalf. He has proven himself a persistent and courageous official who has occupied the position during what, let us hope, is the most trying year in the history of medicine in Michigan. There is at present a buoyant optimism that has cast behind any

semblance of despair and has replaced it by a hope for better times.

Dr. George LeFevre, the new president, assumes office not only after his year as

DR. J. M. ROBB, DETROIT, RETIRING PRESIDENT OF THE MICHIGAN STATE MEDICAL SOCIETY, 1932-33

president-elect but after years of service on the Council of the Society. Commenting on the choice of president-elect by the House of Delegates a year ago the JOURNAL presented the following introduction of Dr. LeFevre which we here repeat:

"Dr. George LeFevre of Muskegon was chosen president-elect of the Michigan State Medical Society by the House of Delegates at the 112th Annual meeting. The choice is a happy one. Dr. LeFevre has been a member of his county and state medical society since his graduation in 1891, when he located in Muskegon. He was at one time president of the Muskegon County Medical Society. For the past nine years he has been councillor of the eleventh district. The Michigan State Board of Registration in Medicine, of which he was a member, elected him chairman for sixteen years successively. For the past twenty years the new president-elect has confined his practice to surgery. With him are associated two sons, Dr. Louis, a graduate of the University of Pennsylvania, and Dr. William, of the University of Michigan Medical School. Dr. Le Fevre's interests have extended beyond his profession. He is also chairman of the board of the Hackley Union National Bank. When the time comes a year hence to assume the duties of office, he will perform them with ability resulting from many years' intimate experience in the medical affairs of the state and its educational institutions, as well as happy contact with the medical profession of Michigan."

Dr. LeFevre may rest assured that he has behind him the moral support and confidence of the entire Michigan State Medical Society.

DR. RICHARD R. SMITH, PRESIDENT-ELECT

At the 113th annual meeting of the Michigan State Medical Society held at Grand Rapids, September 11 to September 14, Dr. Richard R. Smith, of Grand Rapids, was elected to the position of president-elect. The choice is unquestionably a wise one. Dr. Smith is widely and favorably known throughout the state, not only as a surgeon but as a regent* of the University of Michi-

DR. RICHARD R. SMITH, GRAND RAPIDS, PRESIDENT-ELECT OF THE MICHIGAN STATE MEDICAL SOCIETY

gan, to which position he was appointed to succeed the late Dr. W. H. Sawyer, in May of 1931.

Dr. Smith was born in Grand Rapids. He received his early education in the schools of his native city, and at Phillips Academy, Andover, Massachusetts. Following this academic training he attended the Univer-

*See JOURNAL of the Michigan State Medical Society, Vol. XXX, 1931, page 467, for editorial comment on Dr. Smith's appointment as Regent of the University of Michigan.

sity of Michigan, where he was graduated in 1892. He practiced for three years in Houghton County, after which he pursued post-graduate work in medicine in Vienna and at the medical centers in Germany. He has practiced in Grand Rapids since 1897.

LAW AND MEDICINE

There recently appeared a report by a special committee of the Michigan State Bar Association that contained some rather significant matter of interest to those outside as well as within the legal profession. On the question as to whether too many persons are admitted to the practice of law in Michigan, the report says:

> "The question is important not merely because an excess of lawyers will unfavorably affect the economic condition of members of the bar but because an excess must necessarily result in failure of many to earn a decent living and to practice law in the right manner.
>
> "It is indubitable that if there are too many members of the bar, the competition for business becomes so keen that those with little moral resistance are apt to yield to temptation to achieve financial success by doubtful means. The strain falls heavily upon the younger members of the bar who are still fighting for a foothold."

There is a certain parallel in the case of medicine, with this difference: there is a tendency for the lawyer who obtains his legal training in a certain state to remain there. While there is a certain universality in the principles of law, particularly what is known as common law, each state has its own statutes, an acquaintance with which is necessary to the practicing lawyer. Medicine is more cosmopolitan. A doctor educated in Michigan could practice so far as his science is concerned in England, France or in Timbucktoo.

Again. Some countries, notably France, are said to limit the number of doctors to the needs of the people. In America, particularly in Michigan, there is not a plethora of doctors so much as inadequacy of distribution, according to the recent survey made, that raises a problem. There is another difference between law and medicine. We are told that in law, by and large, not more than 50 per cent take the course with the object of practicing law; everyone who goes through for medicine does so with the object of making it a life work.

The legal report mentioned, states that where there are too many members of the Bar, "the competition for business becomes so keen that those with little moral resistance are apt to yield to temptation to achieve financial success by doubtful means." This is very unfortunate. Far better if a person finds himself maladjusted for any calling he should seek some other means of livelihood.

THE MEDICAL JOURNAL

Within the past four or five months this Journal, along with many other medical and lay publications, has had to tighten its belt. A comparatively small portion of the fees of the society goes into the production of the Journal. The amount appropriated from the annual membership fee for the subscription would scarcely more than cover the cost of the blank paper. The chief source of revenue, of course, is advertising. We might add that the policy of the Journal has been to include a select number of firms whose products are worthy of the patronage of the profession. We will be pardoned for expressing the opinion that the best form of advertising is through some medium such as this Journal which is more to be preferred, from the physician's point of view at least, to litering up his desk and eventually filling his wastepaper basket with the volume of third class mail that reaches him each morning. We feel that the Journal is rendering a service to the profession by making the selection of advertising matter which appears in it from month to month and in return the profession would not only benefit by patronizing the advertisers but would advance the interests of this Journal as well which is their own collective property.

While the number of printed pages of the Journal has decreased, the demand for space on the part of would-be contributors is definitely on the increase. With the demand for space on the increase and the amount of available space much diminished, condensation should be the order of the day. It is almost needless to say that it takes a great deal more skill and mastery of the subject to produce a short paper than it does a lengthy one. The short paper, however has the advantage of a greater number of probable readers. If writers would practice the art of brevity the result would be a greater variety of papers and a much more interesting Journal.

THE VALUE OF ORGANIZATION

At the opening of the new medical year it seems apropos to stress a very important idea in the life of the medical society, namely, the necessity of greater cohesion. The depression has had the effect of a centrifugal force causing many to lose their contact with organized medicine. The very existence of the individual doctor is threatened by such a course. Without medical centralization as physicians we are mere skirmishers in the warfare against disease and unprotected so far as our professional selves are concerned. Much has been said and written of late on the social and economic aspects of medicine. In our own state an exhaustive study has been in progress over two years resulting in a very complete survey of medical and health agencies (We shall have more to say on this subject). The study of social and economic phases of medical science and practice, however, will avail but little in a loosely organized medical society. The strength of the individual is the group and the strength of the group is the singleness of purpose of its component parts.

"Now this is the Law of the Jungle—as old and as true as the sky;
And the Wolf that shall keep it may prosper, but the Wolf that shall break it must die.

As the creeper that girdles the tree-trunk the Law runneth forward and back—
For the strength of the Pack is the Wolf, and the strength of the Wolf is the Pack."

ON BEING INDEPENDENT

Some time ago a prominent citizen of Detroit produced consternation among small, independent merchants by making a statement to the effect that the day of the smaller independent business man had passed and that we were well into an era in which all manufacturing and merchandizing would be done by large corporations. It would be in the interests of economy and he claimed that many of the independent merchants would be better off working for large concerns than eking out a precarious existence operating their own little stores. He may be right in his prediction. We feel, however, that the more private independent industries and small merchants we have, the better for all concerned. Better a fair livelihood with a sense of economic security than a larger income that may terminate with a week's or a day's notice. We demand security against want, against old age. This is not possible to the employee of a great organization who is subject to the caprices of an employer which may be a soulless corporation. No employe of a large corporation is free: he is subject to the powers higher up. The manager or the president, himself, must produce dividends for the stockholder or his position is insecure. There is no room for individual initiative. When advancing years or failing health render the services of worker or employe less efficient, he finds himself dismissed with the result that he is a victim of charity, an intolerable position for any self-respecting man. The more independent, self-supporting citizens, whose fate is not subject to the whims of an employer the better for the country. There is a tendency for big business to enslave not only its employees but its so-called higher up officials as well.

And yet there are those who would organize medicine along the lines of big business in the way of groups centered around hospitals whereby the doctor would be reduced to the status of a salaried employe only to be cast aside on the human junk pile when, in the opinion of the management, his "efficiency" should become impaired or diminished.

THE SKY O' MICHIGAN

Oh, th' blue, th' azure blue
O' th' sky in Michigan,
Sic a sicht, oh, sic a hue
Is th' sky o' Michigan

Lang we look an' lang we see
Wonders o' eternity
In its depth an' majesty,
In its great sublimity.

In ma doonie bed ah lie,
Peerin' through th' window pane,
Through th' trees intil th' sky,
Th' azure sky o' Michigan.

Birds are flittin' in th' sky,
In th' sky sae blue an' gran',
Oh, that ah could only fly,
Tae th' sky o' Michigan.
Ah weel, Guid Nicht.

Weelum.

THE PHYSICIAN'S REWARD

From toil he wins his spirits light,
From busy day the peaceful night;
Rich, from the very want of wealth,
In Heaven's best treasures, peace, and health.
—*Anon.*

HISTORICAL

A DOCTOR'S RECORDS OF A HUNDRED YEARS AGO*

Howell L. Begle, M.D.
DETROIT, MICHIGAN

The following letter will introduce what I present to you this evening.

April 14, 1922.

C. M. Burton,
Detroit

I am sending you a book lately found in the attic of a house once owned by John C. Williams. It is evidently a doctor's record, covering the years 1817-23. The name of the doctor nowhere appears. The remedies are nearly all now unknown. The 3rd charge is for venesection (bleeding) of Mr. Woodworth and a trip, $3.50. John R. Williams' growing family needed a good deal of paregoric. Gov. Cass was a frequent caller on the doctor, often getting an emetic. In September, 1817, there was evidently a small-pox scare as the doctor made about 60 inoculations that month. This was his best month as far as the record shows, his charges amounting to $140.00 and over. Usually they were less than $100.00. There are a number of charges for surgical operations—the largest being $20.00.

Yours respectfully,
A. H. Phinney
655 Collingwood Ave.

The above letter is attached to the inside cover of the account book which is now in the Burton Collection. Adjoining Mr. Phinney's letter is this comment by Mr. Burton:

"The book probably was kept by Dr. Wm. McCoskry. Upon the death of Dr. McCoskry, John R. Williams was appointed administrator of his estate and many of the papers of the Doctor are among the Williams papers. This particular book was taken by John Constantine Williams, a son of John R. Williams, and carried with him to Florida, where he died. The book was then given to Mr. A. H. Phinney, as he states in his letter and by him presented to the Burton Collection, June 26, 1922."

There are in fact four personal record books of Dr. Wm. McCoskry in the Burton Collection. They cover the years from 1812 to 1831. The records are an account of his medical practice from day to day. His system was a simple one, but he carried it through approximately twenty years, finding apparently, that it met his requirements and needed no change. He records the date, the name of his patient, the medicines and the amounts dispensed—rarely some other medical or surgical service,—and the charges for the same. The goose quill of the doctor wrote the record with neatness and clarity, virtues I would attribute in part, at least, to his previous military training.

One looks over with much interest these old account books of Dr. McCoskry. The imagination carries one back to the life and times of that small village of a few streets along the water-front that had in it, however, the germs of the metropolitan Detroit of today. Stimulus is engendered to investigate in numerous directions its history. When one reads the names of Dr. McCoskry's patients, and is aided occasionally by some descriptive note relative to their residences and occupations, the little community takes on life. There were officers from the Post, French settlers from up and down the river, traders, sailors, an Indian boy, occasional callers from Sandwich or the Thames across the river, and not a few early Americans of prominence. We recognize often the founders of old families of today. Their names are at least familiar when perpetuated in the names of our streets. The drugs that the doctor dispensed and the occasional surgical service that he rendered give us some idea of the scope of medical practice one hundred and more years ago.

I trust that you will be interested in reviewing with me, the few facts available relative to Dr. McCoskry's life, and will permit me some liberty in wandering along historical byways. I am not aware that other physicians have given these record books even a cursory glance. It is, of course, impossible to describe them in any detailed way. Moreover, there would be no sense in doing so. There is no particular romance in Dr. McCoskry's life. If the shade of the good doctor hovers over this meeting, I am sure it says, "Why stir these dead embers of the past?" We can at least assure it that we will turn the pages reverently and with sympathy and understanding.

Dr. McCoskry's birthplace is given as Carlisle, Pennsylvania, and the year of his birth, 1763. In 1777, General George Washington gave instructions for the formation of a Corps in the Army to be called artillery artificers, whose duty it would be to cast cannon, bore guns and prepare ammunition for the Army. Two Pennsylvania brothers were members of the Corps from 1778-1782, S. A. McCoskry as surgeon and his brother, William, as surgeon's mate. As William was but a boy in his teens, I take it that he was sort of an apprentice to his older brother. In 1791, Dr. Wm McCoskry was a surgeon in the army of General St. Clair. This officer had been given command of the army by President Washington and had been instructed to build a line of forts in Ohio from the mouth of the Miami River to the mouth of the Maumee, where the infant Ohio settlements needed protection from the Indians. This expedition was surprised and badly beaten by Little Turtle, chief of the Miami tribe.

The next record of Dr. McCoskry is as a surgeon in the army of General Anthony Wayne, and with General Wayne's army he came to Detroit. While the treaty of peace at the end of the Revolutionary war was signed in 1783, the British continued to hold the frontier posts at Detroit and Mackinaw, although the settled boundary placed them inside the northern line of the United States. Undoubtedly the merchants of Montreal were loathe to see these posts, which had provd lucrative centers of the fur trade, pass from their hands. They encouraged the Indians to believe that the tenure of the Americans to the Ohio country and the region of the Great Lakes was only temporary. General Wayne pressed his campaign with vigor against the hostile Indians in Ohio and won a decisive battle at "Fallen Timbers" in 1794. General Wayne became known to the Indians as the leader "who never slept." They lost heart for further conflict, and this, with diplomatic representations, led to the evacuation of the Post at Detroit by the British. Col. John Hamtramck took over the post for the Americans, July 17, 1796—thirteen years after the treaty of peace ending the Revolutionary War.

The following are given as the first Americans to settle in Detroit in 1796: Solomon Sibley, John Whipple, Dr. Wm. Brown, Wm. Russell, Christian Clemens, Jack Chittenden, Benjamin Chittenden, Dr. Wm. McCoskry, James Henry, Elijah Brush, Henry B. Brevoort, Col. Harry Jackson Hunt, Augustus Langdon and Major John Whistler. Dr. McCoskry resigned from the army in 1803 and started in private practice. As one of his credentials he presented his commission from General Washington and this is now in the Burton Collection.

Dr. William Brown, who also came to Detroit in

*Read at the meeting of the Detroit Opthalmological Club, Detroit, Mich., October 5, 1932.

1796, became a successful practitioner and took a prominent place in civic and business affairs. He was one of the Trustees of the University of Michigania established in Detroit from 1817 to 1821, and lived many years after Dr. McCoskry had passed on.

In 1807, when alarm was felt in the village over Indian hostility, instructions were issued by James May, Adjutant General of the Territory relative to the means of defense. Included in his orders was the following: "Dr. McCoskry will attend at May's Stone House and Dr. Brown at the Council House, where the wounded will be sent."

The village of Detroit, consisting for the most part of log houses along a few narrow streets on the river front, and surrounded by a stockade, was completely destroyed by fire in 1805. The new village was laid out on more extensive lines. From the Cass Farm and the military reservation on the west it extended to the Brush Farm on the East. One of the narrow streets paralleling the river in the old town was widened to 120 feet and became Jefferson Avenue in honor of the President. A wide street was laid off at right angles to it to become later Woodward Avenue in honor of Augustus Woodward, one of the judges of the territory and who was instrumental in incorporating and platting the new town. It was platted north as far as Grand Circus Park. The vacant land further north for a distance of three miles from the river was known as "The Commons." I remember that when I was a boy living on Joy Street—now Peterboro Street, we called the vacant stretches of land to the west of Third Street—a fine play ground—"The Commons."

Dr. McCoskry's record begins in 1812. There is a break from September, 1812, until July, 1814. This period coincides with the British occupation following the surrender of General Hull. This was a trying period for the Americans who remained in the village. The British civil governor, Proctor, is said to have been tyrannical and cruel. The unprotected settlements outside the town were subjected to Indian atrocities. A number of residents were expelled by the Governor, among them Dr. William Brown. Possibly Dr. McCoskry left also, as the lapse in his records would suggest. Following Perry's victory on Lake Erie and General William Henry Harrison's victory at the Thames, the village was again occupied by the Americans.

There are but few other available facts relative to Dr. McCoskry. He was married in 1814. A nephew of his, Samuel McCoskry, at a later date was an Episcopal Bishop in Detroit. Dr. McCoskry lived part of the time in a small house at the corner of Woodbridge and Randolph Streets, across from the famous "Steamboat Hotel." There is no record that he was active in civic affairs. For some reason his name is not included among the physicians who formed the Medical Society of Michigan on June 25, 1820. The names were as follows: Dr. William Brown, president; Dr. Stephen C. Henry, vice president; Dr. John L. Whiting, secretary; Dr. Randall S. Rice, treasurer; Dr. Ebenezer Hurd; Dr. Wm. Thompson; Dr. Henry Conant.

Mr. Burton thinks that the last two lived in Monroe.

Dr. McCoskry died in May, 1831. The administrator of his estate, John R. Williams, reported proceeds from the sale of his medicines, books and instruments of $55.89. His widow undertook to collect some of his outstanding accounts.

Among Dr. McCoskry's patients we find the names of many of the French settlers: Dequindre, Beaubien, Riopelle, Langlois, Desnoyers, Baby, St. Aubin, Campau. There were numerous Campaus. One of them, Joseph Campau, lived to a ripe old age and was said in 1863 to be the richest man in Michigan, due to his practice of buying and never selling real estate. Among his American patients we note the following familiar names: Gov. Cass, Solomon Sibley, Jas. May, Benjamin Woodworth, Elijah Brush, Jas. Abbott, John R. Williams, Johnathan Palmer, Geo. Larned and Major Breevort. Governor Cass was Governor of Michigan territory from 1814 to 1831. During this period he was a frequent caller on the doctor. Later he became Minister to France, Secretary of State and in 1848 democratic candidate for President. Solomon Sibley was an attorney and was said "to have been one of the wisest and best men that ever lived in Michigan." He held many important offices. John R. Williams was one of the most versatile men who ever figured in Detroit affairs from 1812 to 1850. He held important business, military, judicial, civic and political positions. He was at one time Mayor of the City.

Benjamin Woodworth was proprietor of the "Steamboat Hotel." Both he and his hotel were famous throughout the territory. A brother, Samuel Woodworth, was the author of the poem, "The Old Oaken Bucket." The following advertisement of the hotel I copy from *The Democratic Free Press* of 1831:

"The subscriber respectfully informs his old customers and the public generally that he has materially improved his establishment on the corner of Woodbridge and Randolph, where he is at all times prepared to receive and entertain his friends, and assures all who may favor him with a call that no pains will be spared to render their stay agreeable.

"The house is large and commodious and the rooms light and airy. His table will, at all times, be furnished with the substantials of life and the delicacies of the season and the bar with genuine liquors. These, together with his unremitting exertions to please and an experience of twenty years, he flatters himself, will assure him a continuance of the liberal patronage he has heretofore received.

"Carriages at all times in readiness to receive passengers from the steamboats and vessels and customers leaving the house shall receive the same attention free of charge.

"Connected with the above establishment are the several lines of stages. To Sandusky three times a week via Monroe intersecting the line from Portland to Cincinnati. Two daily lines to Ann Arbor, Jacksonburg and Tecumseh via Ypsilanti."

Dr. McCoskry, dying in 1831, did not live to see the boom in Detroit during the next decade. From 1830 to 1840 the increase in population was 260 per cent. It is said that in 1836, during the navigation season, the steamboats brought in 1,000 persons per day. Many were emigrants from the East seeking new homes in all parts of the territory.

I am sorry to have to contradict Mr. Phinney, but the drugs dispensed by Dr. McCoskry are for the most part found in the Pharmacopedia of today. Probably we have not the same faith in their efficacy that he had. While occasionally I am unable to decipher his abbreviations, I am able in most instances to recognize the preparation. There are none of the weird substances used in earlier days. After looking over some old formularies, I should say that one would have to go back nearly another hundred years to find such prevalent in medical practice. Dr. McCoskry dispensed his own drugs. Here, for instance, is one notation to the effect that he advanced Peter Desnoyers $50.00 to purchase drugs from the house of Shieffelin & Co., New York. Mr. Burton had occasion to look up the first drug stores in Detroit. He could not find in 1820 that there was a single store where drugs were sold.

Dr. McCoskry directed many of his medicines against the gastro-intestinal tract. He used freely emetics, cathartics, stomachics and carminatives. Perhaps he was right. If not high living, there was much hard drinking in those days. Whiskey was

cheap and abundant. Here is a typical advertisement of a sheriff's sale of chattels in 1831:

One barrel of whiskey
Part same of vinegar
One feather bed, one bridle
One lump of sugar
One gallon bottle with brandy, etc.

The cathartics dispensed by the doctor were:

Pil. Cathartic, Ol. Ricini,
Pil. Rhubarb, Senna, Calomel,
Pil. Jalap with or without croton oil,
Magnesium, Salin mixture.
Pulv. laxative, Pil. Vermifug. and
Pil. Fetid.

The last drug, I dare say, was used for its psychic effect.

Dr. McCoskry believed fully as much in the value of emetics as cathartics. Usually he merely designated the preparation dispensed as emetic. Frequently, however, he followed this term by the emetic used as Emetic Ipecac, Sol. Antimony or Cream Tartar. Other gastro-intestinal remedies used were Pil. Stomachic, Mist. Carminative, Olive Oil, Pil. Argent, Nitric, Dilute Sulphuric Acid.

Dr. McCoskry employed opium either as the pill or tincture very frequently. The sedatives at his disposal were, of course, limited. Here is a typical combination, in this case given to Gov. Cass: Magnesium 3III, Tinct. Opii 3I.

Paregoric and Dovers powders were other forms of opium used. Sudorifics and diaphoretic powders were frequently dispensed, the exact drug used not being designated. Much cinchona was prescribed; in later years, quinin. While this possibly indicates the prevalence of malarial fevers, it should be remembered that in later years, at least, quinin was an almost universal remedy and routinely employed. Other drugs or preparations employed were Tinct. Digitalis, Pil. Myrrh with iron, Pil. Ferri Carbonate, emplastrum anodyne, Pulv. Cantharides, Ung. Hydrarg. Muriat. Arnica, Borax as a gargle, Sol. Arsenic, Tinct. Sanguinaria, Balsam Copaiba and Tinct. Kino. Occasionally he dispensed an eye wash. One day in 1815 he had no less distinguished a caller than General William Henry Harrison. General Harrison's recent campaign must have given him some trouble with his eyes as Dr. McCoskry gave him Aq. Ophthalmica. This seems to have been the only eye remedy used by Dr. McCoskry, except for a similar one, Pulv. Ophthalmica. In a formulary dated 1814, Aq. Ophthalmica is described as a solution of "white vitriol" (zinc sulphat.). An older formulary gives the following directions for preparing Aq. Ophthalmica:

Take of unprepared Bole-Armeniac (Armenian earth—a red clay containing iron) 2 ounces, unprepared Tutty (an impure oxide of zinc obtained from the walls of smelting furnaces) one ounce, white vitriol, half an ounce; reduce them to powder and pour thereon 2 quarts of hot spring water, boil them a little together, stir the mixture frequently and after due time allow for it to settle and pour off the clear.

Outside of venesection Dr. McCoskry apparently rendered few surgical services. His charge for venesection varied from $2.00 to $5.00. Occasionally he extracted a tooth—the charge, 25c to $1.00. I find two or three times mention of service in parturition—the charge $5.00. There are a number of instances of reducing fractures, dressing fingers and dilating abscesses, one of amputation of leg, the charge $25.00. I think that one can safely say that at least Dr. McCoskry's medicines did no serious harm to his patients. Here are the ages at death of four of his patients, who treated with him for twenty years and long outlived him:

Gov. Cass	84
Jos. Campau	94
Solomon Sibley	77
Benjamin Woodworth	91

It is opportune and fitting that I bring this rambling paper to a close by reading an editorial and the obituary notice following Dr. McCoskry's death. They are in the issue of the *Democratic Free Press* of May 19, 1831, and must have been written by persons who knew his worth. The editorial is as follows:

"Dr. Wm. McCoskry, whose death is noticed in another column of this day's paper was no common man. The many families in this place and on the opposite side of the river by whom his professional skill was well known and duly appreciated consider his death as a very sore bereavement. Few practitioners of the healing art have been more successful for so long a period of time and his excellent qualities as a man doubly endeared him to those who have been his patients.

"He was a surgeon in the U. S. Army at the defeat of St. Clair and probed the wound of General Butler when he was killed by the savages at Fort Recovery. It has been said that on that occasion he distinguished himself by an extraordinary exhibition of coolness and devotion to his duty. After the disastrous result of the action, General Butler, mortally wounded, was placed behind a rampart of bags of flour and undergoing the operation of probing by Dr. McCoskry who immediately said, "General, your wound is mortal but I will do all I can for you." The words had hardly escaped from his mouth when a volley of shot struck the bags and covered those who were present, with the flour. Some of them, including the unfortunate General, were soon tomahawked by the Indians. Dr. McCrosky and a few leaped over the stream, pursued by their enemies and arrived at Fort Jefferson, a distance of nearly 30 miles, without provisions and with scarcely any clothing."

The obituary notice was as follows:

DIED

"On Monday morning, the 16th of May, 1831, at half past six o'clock A. M. of a lingering illness which he bore with great patience and resignation, Dr. Wm. McCoskry native citizen of Carlisle in the State of Pennsylvania in the 68th year of his age.

"In the death of Dr. McCoskry we are called upon to mourn the loss of one of our most valuable and respected citizens. Long will his friends and the community which knew him best deplore his end as a public calamity. Although his career of usefulness has been long and tried, yet he was taken away in the midst of his skill and experience. Joined to a mind of the most discriminating power and a vigorous and sound judgment, he possessed the advantages of more than fifty years' practice in the sciences of medicine and surgery.

"His first experience was acquired in the service of his country in General St. Clair's campaign and under General Wayne in his celebrated campaigns against the Indians which restored peace and prosperity to our frontier settlements. He continued in the Army until 1803 at which time he resigned. From that time he has been a practitioner in this place. His many excellent qualities, gentlemanly deportment, professional skill and human feelings endeared him to his acquaintances and will cause his memory to be long cherished and remembered."

OBITUARY

DR. H. E. SAFFORD

Dr. Homer E. Safford, of Detroit, died at his home, September 12, 1933, after six months' illness. He was born at Plymouth, Michigan, sixty-three years ago. He graduated from the Medical School of the University of Michigan in 1896. After serving a year as instructor in Medicine at the University he located in Detroit, where he practiced up to the time of his last illness. Dr. Safford devoted his time to psychiatry. During the World War he was a captain in the psychiatric division of the Army Medical Corps. He was a member of the Wayne County and Michigan State Medical Societies and the American Medical Association. Dr. Safford is survived by his widow, Gertrude Sunderland Safford; three daughters, Mrs. Clifford M. Toohy, and Mildred H. Safford, of Detroit, and Mrs. Orlan M. Arnold, of Madison, Wisconsin; a son, Truman S. Safford, of New York City, and a sister, Miss Ada Safford, of Detroit.

SOCIETY ACTIVITY

THE ANNUAL MEETING

The minutes of the annual meeting will appear in the November JOURNAL. The following paragraphs impart a few of the high points which will be imparted in detail in the published minutes.

Dr. R. R. Smith of Grand Rapids was elected President-elect.

The Upper Peninsula was divided into two councilor districts with Drs. Manthei and Perry elected as Councilors.

Dr. F. P. Treynor was re-elected as Councilor of the 11th District.

Dr. H. A. Luce of Detroit was elected Speaker and Dr. F. A. Reeder Vice Speaker. By action taken the Speaker becomes a member of the Council.

Dr. L. J. Hirschman was elected delegate and Dr. C. F. Moll alternate delegate to the A. M. A.

Dr. B. R. Corbus was elected Chairman and Dr. Henry Cook Vice Chairman of the Council.

Battle Creek was selected as the place for our 1934 meeting.

The Economics Committee was continued.

The attendance registered was 853. At least 100 failed to register. A fair estimate is that over 1,000 were in attendance. A live interest was shown in all the sections and general sessions. The scientific and commercial exhibits evoked much favorable comment.

As hosts the Kent County Medical Society exemplified splendid hospitality. It was a good, profitable annual meeting.

MEMBERS IN ARREARS

By action of the House of Delegates at the Grand Rapids meeting the Secretary was directed to place upon the suspended list all members whose dues are not paid by October 1. This entails the withdrawal of medico-legal protection and the discontinuance of the JOURNAL.

If you have not paid your current dues this will mean that this is the last JOURNAL you will receive and your medical legal protection terminated.

It is urged that you see your county secretary and arrange with him for the continuance of your membership. Do not let it become necessary to place your name upon the suspended list.

YOUR CARD FOR THE DIRECTORY

This month an information card is being sent from the headquarters office of the American Medical Association to every physician in the United States and Canada. The information thus secured is to be used in the compiling of the thirteenth edition of the American Medical Directory. The directory is prepared at regular intervals in the Biographic Department of the American Medical Association. The last previous directory appeared in 1931. This volume is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States. In it, as in no other published directory, may one find dependable data concerning physicians, hospitals, medical organizations and activities. It provides full information concerning medical colleges, specialization in the field of medical practice, memberships in special medical societies, tabulations of medical journals and medical libraries and, indeed, practically every important fact concerning the medical profession in which any one might possibly be interested. Therefore, those who receive this card should fill it out and return it promptly whether or not any change has occurred in any of the points on which information is requested. Should any reader fail to receive a card before the first of October, he may aid by writing at once to the headquarters office, stating that fact and indicating such changes as he may desire in the information published in the 1931 issue of the directory.

DELINQUENT DUES

By action of the House of Delegates all members in arrears on October 1 will be placed on the suspended list. This will deprive them of all medico-legal protection, the JOURNAL will be discontinued and they will be reported to the A. M. A. as being suspended.

No member should permit his name to be placed upon the suspended list. Society affiliation is a valuable asset. Its benefits are direct and personal. Next to your license

your membership certificate is of foremost importance.

See your County Secretary and arrange for the continuation of your membership. Unless prompt action is evidenced there will be no alternative but to list you as suspended.

MINUTES OF THE COUNCIL

The Council of the Michigan State Medical Society convened in the Pantlind Hotel, Grand Rapids, Michigan, the morning of September 11, 1933.

Present: Corbus, Carstens, Heavenrich, Hafford, McIntyre, Powers, Boys, Bruce, Cook, MacMullen, Baker, Urmston, Van Leuven, Treynor, Brunk and President Robb, President-Elect LeFevre and the Secretary.

1. The Chairman presented a copy of the annual report of the Council to the House of Delegates. This was discussed paragraph by paragraph and upon motion of Bruce-Heavenrich was approved for transmission to the House of Delegates. (See minutes of House of Delegates.)

2. The Secretary presented invitations from several county societies for the next annual meeting. Upon motion of Treynor-Urmston, the invitations were ordered to be transmitted to the House of Delegates without recommendation.

3. The Executive Committee transmitted the following as a subject report to the Council.

"Dear Doctor Corbus:

"The committee in regard the Wayne County Bill for medical legislative service presented by the Wayne County Medical Society met in Lansing on August 25, 1933, being present Drs. Kelly, Robb, Luce and your committee.

"In connection with this case we wish to say that there are certain facts and principles involved. The first question that was raised was Wayne County holding out $1500 dues due the Michigan State Medical Society which we consider unconstitutional and liable to be interpreted as a whip over the State Society; secondly, were these expenses incurred by the Wayne County Representative without authorization and knowledge of the legislative committee? Upon inquiry from the chairman of the legislative committee we find that the expenditures were contracted with the full knowledge and authorization of the chairman of the legislative committee and at least partially with the knowledge of the full committee, and to quote Dr. Carr, "Much of Wayne's bill covers the cost of carrying out my directions and requests." After discussion with Dr. Carr the only part of the bill as presented which should be questioned is that of the hotel bill, amounting to $272.86. Had he not accepted Burns' services the hotel expense would have been paid by Wayne County. There are two facts in this connection which should be understood; first, no charge is made for Burns' services and he was in Lansing at our disposal for approximately six months and away from his job in Detroit for which Wayne County paid him approximately $2,000. Secondly, we are informed that the individuals personally spent considerable money from their own pockets to further our interests in the legislature. The president of the state society makes this statement and it is undoubtedly true that when the banks closed Burns was stranded in Lansing in the interest of the state society and there was no money in our treasury to carry on our work and these individuals financed the activity of the society, together with monies advanced by Mr. Burns. Part of these monies were paid to Dr. Robb, I understand, by Wayne County. The remainder that Dr. Robb spent was his personal contribution to the State Society, and he refuses to render a statement for the same. For these reasons, and because thousands of dollars that they had collected both for their own dues and ours were tied up in the bank they were unable unquestionably until this time to pay the State Medical Society $1,500 which had been collected.

"It is our honest opinion, therefore, that it was in no way the intention of Wayne County to hold this money to force us to pay this bill. After reviewing the facts as aforesaid described in this report, we recommend to the Council that the full amount of the bill as presented by Wayne County Medical Society for monies which they had advanced should be paid to the extent of $1,875.95.

"The reason we include the hotel bill of Mr. Burns is because Wayne County makes no charge for Burns' salary and that Dr. Robb will present no bill for the money he personally expended in the interest of the society.

"Respectfully submitted,
HENRY COOK, *Chairman,*
J. H. POWERS,
C. E. BOYS."

Upon motion of Heavenrich-Urmston the report and its recommendations were concurred in.

4. Upon motion of Bruce-MacMullen, the Secretary was directed to send a voucher to Wayne County for their bill for legislative expenses as soon as the Society's funds were available.

5. The Secretary presented financial statements of the Society, together with a list of unpaid members. These reports were discussed and ordered filed for future reference.

6. Councilor Hafford raised the question of employment of additional attorneys to assist the chief Counsel in all cases handled by the Medical Legal Committee. After discussion, the Secretary was directed to arrange for the appearance of Mr. Barbour and the Chairman of the Medical Legal Committee at the January meeting of the Council for further discussion of this subject. The Council then recessed.

SECOND SESSION OF THE COUNCIL

The second session of the Council was held in the Pantlind Hotel, Grand Rapids, Michigan, on the morning of September 13, 1933. Present: All the Councilors, including the new Councilors, Drs. Manthei and Perry and the Speaker, H. A. Luce and President LeFevre and the Secretary.

1. Councilor Urmston was called to the chair and the first order of business was the election of Chairman for the ensuing year. Dr. Bruce nominated Dr. Corbus as Chairman, supported by Dr. Heavenrich. Upon motion of Dr. Hafford, supported by Dr. Baker, the secretary was directed to cast the ballot for Dr. Corbus as Chairman. The Secretary did so cast and Dr. Corbus was declared elected.

2. Dr. Corbus assumed the chair and in a few gracious words expressed his appreciation for his re-election and for the confidence that was thus being placed in him.

3. Upon motion of Heavenrich, supported by Hafford, Dr. Henry Cook was nominated for the office of Vice Chairman. Upon motion of Urmston and Carstens, the Secretary was directed to cast the vote for Dr. Cook. The Secretary did so cast and Dr. Cook was declared elected.

4. The Executive Committee: By action of the Society, the Chairman and the Vice-Chairman and

the Speaker of the House of Delegates become members of the Executive Committee and the Chairmn of the three Council Committees constitute the remaining members of the Executive Committee. Upon motion of Baker and Urmston, Dr. Carstens was elected Chairman of the Finance Committee. Upon motion of Cook-Heavenrich, Dr. J. D. Bruce was elected Chairman of the Publication Committee. Upon motion of Powers-Brunk, Dr. C. E. Boys was elected Chairman of the Committee on County Societies.

5. Upon motion of Carstens-Urmston, the Council decided to hold its mid-winter session in Detroit in January, the date to be fixed by the Chairman and the Executive Committee.

6. The Secretary presented communications that had passed between the Secretary and the Chairman of the Council from Henry B. Knapp of Battle Creek in regard to a loan that had been made in connection with a medical legal matter in which Dr. Knapp was involved. Upon motion of Dr. Hafford and supported by Dr. Powers the action of the officers and the opinions that they expressed were sustained by the Council.

There being no further business, the Council adjourned to meet in Detroit in January, 1934.

F. C. Warnshuis, *Secretary.*

GYNECOLOGICAL SECTION

The following is a summary of the proceedings of the Section on Obstetrics and Gynecology at the recent meeting of the Society:

The attendance at the Section meetings was unusually large and enthusiastic. The papers read were well prepared and aroused much discussion. Credit for these excellent programs is due to the untiring efforts of Dr. Norman F. Miller, retiring chairman. The work of the local committeeman, Dr. Anderson of Grand Rapids, in arranging the place of meeting and the necessary equipment was another important factor which contributed to the success of the meeting.

Dr. E. D. Plass, Professor of Obstetrics and Gynecology, University of Iowa, was guest speaker at the Section meeting and at the general session, September 14.

Reports of the Committee on Clinical Problems, the Committee on Birth and Death Certificates, and the Committee on the Study of Birth Control were presented by their respective chairmen and approved by the Section. It was voted to continue these committees during the coming year. The committee reports will be published in the Journal of the Michigan State Medical Society.

Dr. Harold Furling, of Pontiac, was elected chairman of the Section for the coming year; Dr. Harold C. Mack, of Detroit, will continue as secretary.

The chairman will be pleased to consider papers for presentation at the next meeting of the Section in Battle Creek. Members wishing to present papers will please communicate with the chairman or secretary.

Respectfully submitted,
Harold C. Mack, M.D., *Secretary.*

FORTIFICATION OF FOODS OTHER THAN TABLE SALT WITH IODINE OR IODINE COMPOUNDS

The Committee on Foods reports that the fortification of foods other than table salt with iodine or iodine compounds may lead to excessive iodine intake and endanger public health. Foods so fortified, other than table salt, will not be eligible for acceptance. (Jour. A. M. A., August 5, 1933, p. 448.)

COUNTY SOCIETIES

NORTHERN MICHIGAN

The regular meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, September 7, 1933. There were twenty members and two guests present.

The meeting was called to order by President Frank. It was moved and seconded that flowers be sent to Drs. Neihart and Parks, who are confined to their homes with illness. Carried. It was moved and seconded that our delegate be instructed to nominate Dr. B. Van Leuven for re-election as Councilor. Carried. Dr. Carleton Dean was appointed to the Program Committee.

The speaker for the evening, Attorney Ward Waller of Cheboygan, gave a very interesting and instructive talk on the medical legal phases of medicine.

E. J. Brenner, *Secretary.*

SHIAWASSEE COUNTY

Shiawassee County Medical Society resumed meetings after a three months' recess, on Thursday, September 21, with a goodly number in attendance.

After disposing of some routine business, Dr. I. W. Greene made a report of the meeting of the State Society at Grand Rapids, September 11 to 15. The report was unusually good. He also read his address as chairman of the section of general medicine, entitled "The Unimportance of being an Internist," which was thoroughly enjoyed, and because of its originality brought out much discussion, particularly among the surgeons present.

The Shiawassee Society meetings are luncheon meetings, held at noon on the third Thursday of the month. Any physician who happens to be in the vicinity of Owosso on those dates will be heartily welcomed, if he or she will drop in at Memorial Hospital.

W. E. Ward, *Secretary-Treasurer.*

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Department of Post-Graduate Medicine

ELECTROCARDIOGRAPHIC DIAGNOSIS

November 6-11, inclusive

UNIVERSITY HOSPITAL

The course includes the scope of electrocardiographic diagnosis, discussions of the specialized tissues of the heart, Einthoven's triangle, the distribution of electric currents produced by the heart beat, special leads, the aria of electrocardiographic deflection, intraventricular block and axis deviation, the normal curve, various normal and abnormal rhythms, and the effect of drugs, with personal supervision in the examination of curves.

Under the direction of Dr. Frank N. Wilson. Attendance limited. Fee $25.00.

Apply To

Director, Department of Post-Graduate Medicine
University Hospital
Ann Arbor, Michigan

CORRESPONDENCE

SHALL THE DEAF AND BLIND BE STERILIZED?

To the Editor of The Journal of the Michigan State Medical Society:

Our time is a turbulent time. Human weakness, it would seem, has brought about conditions which create a feeling of uneasiness in many people. The rapid development of mechanical improvements has produced a one-sided progress. Mankind has not adapted itself to changed conditions. Consequently, abnormalities have developed which have created dissonances. This experience is not new. Whoever studies history, especially that of the French revolution, will find much in common with conditions and actions of our time. Among the multitude of measures suggested there is one which interests the deaf and the blind more than others. The thought has been advanced, in some quarters, if reports are correct, that deaf and blind people should be sterilized. While it is advisable that certain classes of people should be prevented from perpetuating their condition, it is to be avoided, to generalize, for a good reason. Sociologists, of course, are familiar with family trees of degenerates which prove, beyond a doubt, that sterilization is very advisable in some instances but it is also necessary to study the situation very thoroughly in other conditions so that no injustice may be done. A searching inquiry should be conducted concerning the deaf and blind and it would be found in our opinion, that only a small number of the deafened and the blind would come under consideration. If people would draw the proper conclusions from the suggested elimination of all ills that befall mankind, it is not very difficult to imagine what may happen. In the course of time, the conception of sound and unsound may undergo changes, and those who advocate more or less radical measures, aiming at a so-called purity of conditions, may themselves be considered unsound. If accepted and demonstrable rules and methods, based on sound principles and on solid ground, are not observed, the process of elimination may progress in such a manner, that the time may come when of the last two surviving members of the human family, one has been sterilized and the other passes away in the fullness of his years as the only perfect specimen of a glorious human race with the self-sufficient conviction to have done his share for the improvement of society.—M. D.

GENERAL NEWS AND ANNOUNCEMENTS

Dr. W. H. German has been appointed school physician for East Grand Rapids schools.

Read the advertising pages, send in your inquiries to advertisers and give them your patronage when purchasing.

The *Medical History of Michigan,* two volumes, is obtainable for five dollars. Send your orders to the State Secretary.

Write to the Director, Department of Post Graduate Medicine, University Hospital, Ann Arbor, for information relative to special courses of graduate study.

Drs. G. L. LeFevre, B. R. Corbus, W. H. Marshall and F. C. Warnshuis attended the A. M. A. State Secretaries Conference in Chicago September 22 and 23.

Dr. Edward D. Spalding of Detroit addressed the opening meeting of the Oakland County Medical Society on September 21. His subject was "Cardiac Disease with Special Reference to Therapy."

Dr. Bruce H. Douglas, superintendent of the William H. Maybury Sanatorium at Northville, was appointed director of tuberculosis work for the Detroit Board of Health to succeed Dr. Henry D. Chadwick, who resigned to accept the position of Commissioner of Health of Massachusetts.

The fifty-first annual meeting of the Wabash Railway Surgical Society was held in Detroit, September 11 and 12. Papers were presented by Detroit men as follows: Dr. George P. Myers, "Fractures about the Ankle Joint"; Dr. Angus McLean, "Thrombi and Emboli, Cause and Consequences"; Dr. J. H. Dempster, "Traumatic Neurosis, Fact or Fiction?"

The annual meeting of the State Secretaries and Editors of the State Medical Journals was held at the Palmer House, Chicago, September 22 and 23. Those present from Michigan were: Dr. Burton R. Corbus, chairman of the council of the Michigan State Medical Society; Dr. F. C. Warnshuis, secretary of the Michigan State Medical Society, Grand Rapids; and Dr. J. H. Dempster, of Detroit. An extended account of this meeting in which the Michigan State Medical Society figured prominently will appear in the November number of this journal.

The attention of the members of the Michigan State Medical Society is called to two articles in the *Journal of the American Medical Association* of September 23 in regard to the distribution of Federal money in medical relief. (See *Journal of the American Medical Association,* pages 1005 and 1026). This last minute announcement before going to press makes impossible any extended reference other than that a certain sum of money has been set aside by the United States Government for the medical care of indigents. Within legal and economic limitations, the traditional relations between patients and their physicians, dentists and nurses are to be maintained. Professional services rendered patients on relief rolls must be of the same type as those rendered private patients and are to be paid for at agreed rates, due allowance being made for the conservation of relief funds. The common aim, as stated by the administration, is the provision of good medical service at low cost, to the benefit of the indigent patient and the physician, nurse, dentist and taxpayer.

The Wayne County Medical Society will begin its 1933-34 season on October 2, 1933. The weekly meetings this year will be held on Mondays, 8:45 p. m., in the Detroit Institute of Art, Woodward at Putnam, Detroit. An innovation this year will be an "afterglow," following the first meeting in each month, arranged in honor of the Past-Presidents of the Society. This informal meeting, with supper and refreshments, will be held in the Society home, 4421 Woodward at Canfield, Detroit. Members of the Michigan State Medical Society are cordially invited to attend the weekly meeting of the Wayne Society. They will be given a hearty welcome. The first meeting will feature an address by A. M. Smith,

Ph.B., of the *Detroit News* on "The Philosophy of Medicine." At this meeting, the first in the Art Institute, Mr. Albert Kahn, Vice-President of the Institute, will give an address of welcome. The Society will present a certificate of honorary membership to Mr. Malcolm Bingay, executive director of the *Detroit Free Press*.

The October 9th Medical Section meeting of the Wayne County Medical Society will be addressed by Dr. Charles G. Jennings of Detroit. Dr. T. Wingate Todd of Western Reserve University, Cleveland, will give his very illuminaitng address, "Royal Mummies," on October 16. The Surgical Section meeting of October 23 will be a Symposium on Burns, as a memorial to Dr. E. C. Davidson, the brilliant young Detroit surgeon who developed the tannic acid treatment for burns, and who recently died suddenly.

The Wayne County Medical Society invites officers of other county socities to utilize the Speakers' Bureau of the Wayne unit, in preparing their programs for 1933-34. Excellent talent for the presentation of any medical subject, or subject on medical economics, can be obtained by writing the Speakers' Bureau, 4421 Woodward, Detroit. Give full details regarding the date, hour, and exact place of meeting, the average attendance, and the subject you wish discussed. Please give the Bureau at least two weeks' noitce, to make sure of the best assignment possible for you.

ACUTE MYELITIS (MYELOMALACIA): SYNDROME OF OCCLUSION OF ANTERIOR SPINAL ARTERY AT FIFTH CERVICAL CORD SEGMENT

WALTER F. SCHALLER, ARCHIE M. ROBERTS and EDWARD F. STADTHERR, San Francisco, record two cases of acute myelitis illustrating the syndrome of occlusion of the anterior spinal artery at the fifth cervical cord segment. They discuss in detail the circulation of the spinal cord and point out that extensive acute myelitis occurring in the lower cervical cord segments produces a definite clinical picture; flaccid paralysis of the upper extremities with subsequent atrophies and contractures, spastic paralysis of the trunk and lower extremities and impairment of pain and temperature sensibility below the level of the lesion.—*Journal A. M. A.*

THE FORM OF THE STOOL AS A CRITERION OF LAXATION

GEORGE R. COWGILL, WILLIAM E. ANDERSON and ALBERT J. SULLIVAN, New Haven, Conn. (*Journal A. M. A.*, July 22, 1933), call attention to the results obtained in their investigations in which laxation was studied in twenty men over periods of from at least a month to as many as sixty-two days. Their observations support the more general view held by gastro-enterologists, roentgenologists and others that, under "normal" laxative conditions, interpreted subjectively as "satisfactory," food residues require from about sixteen to twenty-four hours to traverse the alimentary tract. In the course of their work they became impressed with the importance of purely subjective criteria of laxation; namely (1) the ease with which defecation takes place, and (2) the presence or absence of a sense of complete emptying at the time the dejecta are passed. The authors suggest that clinicians who are treating cases of constipation give due attention to the matter of securing an easy passage of dejecta together with the satisfying sense that all fecal material has been eliminated.

THE DOCTORS' LIBRARY

OBSTETRICS AND GYNECOLOGY. By 80 Leading Specialists. Edited by Arthur Hale Curtis, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago, Ill. Complete in 3 Volumes and Separate Desk Index. 3500 pages with 1664 illustrations, many in colors. Philadelphia and London: W. B. Saunders Company, 1933. Per set, Cloth, $35.00 net.

The second volume of Curtis' Obstetrics and Gynecology is on our desk. Apparently the space alloted to the two subjects will be equally divided, since all of the first volume and one-half of the second is given over to obstetrics. This volume contributes well written sections on the pathology of labor and the purperium, also 187 pages devoted to operative obstetrics. The gynecological portion of this system is graced by a brief history of American Gynecology written in the usually delightful manner of Howard A. Kelly. This chapter deserves the perusal of every American physician. Following this are chapters on the specific infections,—first by the Author, then by Charles C. Norris, and finally, an exhaustive study of "syphilis in women," by George Gelhorn. Succeeding chapters on the nonspecific diseases are well worth reading, while a long one by the late lamented William P. Graves on uterine tumors probably constitutes one of his best contributions to gynecology. The volume has quite sufficient value to find a place in every medical library—profusely illustrated and printed in such form as does credit to the publishers.

A TEXT-BOOK OF PHYSIOLOGY. By William H. Howell, Ph.D., M.D., Sc.D., LL.D., Emeritus Professor of Physiology in The Johns Hopkins University, Baltimore, Maryland. Twelfth Edition, Thoroughly Revised. 1132 pages with 308 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $7.00 net.

There is no doubt that the twelfth edition of this work will continue as the outstanding American textbook in physiology, particularly since its scope, clarity and price will commend it to students as well as to practicing physicians. The contents are up to date and the manner of presentation of recent research is efficient. The greatest additions are those relative to the physiology of muscle contraction, hormones and vitamins though other sections have been amplified in accordance with recent research. The illustrations, which are largely semidiagrammatic, and the ample index make the work easily adaptable as a textbook.

FOREIGN BODY IN MEDIASTINUM: ESOPHAGOSCOPIC REMOVAL UNDER ROENTGENOSCOPIC GUIDANCE

According to HERMAN J. MOERSCH and B. R. KIRKLIN, Rochester, Minn., mediastinitis following perforation of the esophagus by a foreign body always constitutes a grave surgical problem. Such a complication may be spontaneous or may occur from attempted removal or displacement. The proper procedure in dealing with such a problem is open to much speculation. The situation of the perforation, the degree and extent, whether the foreign body has partially or wholly entered the mediastinum, and its opacity are some of the factors that necessarily influence judgment as to treatment. The authors report a case which constitutes, they believe, a new endoscopic experience in the treatment of a patient and in the removal of foreign body, which was lying entirely in the mediastinum and which was successfully removed under roentgenoscopic guidance, by means of endoscopy.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII NOVEMBER, 1933 No. 11

CONTENTS

The Treatment of Peritonitis Associated with Appendicitis. Eugene B. Potter, M.D., and Frederick A. Coller, M.D. 573

A New Method for the Study of Retinoscopy. Robert Newton Monfort, M.D. 577

Pure Crystalline Carbonate Urinary Calculi. Case Report. George C. Burr, M.D., and William R. Flora, M.D. 579

Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. 580

Editorial:

Society Membership 582
Post-Graduate Medicine 582
Health Insurance Again 583
Misery's Company 584
The Quest of the Good Life 584
Hemostasis 585

Obituary 589

Proceedings, 113th Annual Meeting, Michigan State Medical Society, Grand Rapids, September 11 to 14, 1933 590

Society Activity 626

County Societies 631

Woman's Auxiliary 634

General News and Announcements 634

Of General Medical and Surgical Interest 635

The Doctors' Library 636

THE TREATMENT OF PERITONITIS ASSOCIATED WITH APPENDICITIS*

EUGENE B. POTTER, M.D.† and FREDERICK A. COLLER, M.D.
ANN ARBOR, MICHIGAN

Surgical removal of an uncomplicated acute appendix is in most cases attended by brilliant results, with immediate relief to the patient and an almost negligible death rate. It has been repeatedly shown, however, that time is the most important single factor influencing the mortality of the disease since it is only when perforation has occurred and the process has spread beyond the confines of the appendix that dangerous complications are encountered. Even so, operation done soon after perforation, when the infection is yet limited to the right iliac fossa, is usually little more serious than in the case of a simple unruptured appendix. With the further lapse of time, however, the infection may rapidly invade the entire peritoneal cavity and the lesion becomes one of the utmost gravity. It is with these late cases of appendicitis with diffusing peritonitis that this report is concerned.

Ochsner,[4] thirty years ago, advised against immediate operation for removal of the appendix when general peritonitis was present and suggested a form of conservative treatment known today by his name. This treatment was based upon the principle that the peritoneum, soiled by a ruptured appendix, provided its own protective mechanism capable of walling off the infection present, providing the patient and his gastrointestinal tract were kept at rest and

*From the Department of Surgery, University of Michigan. Read before the Michigan State Medical Society, Grand Rapids, Michigan, September 14, 1933.

†Eugene B. Potter, M.D., F.A.C.S., is a graduate of the University of Michigan Medical School, 1925, and has been a member of the Surgical Department, University Hospital, since that time. At present he is Assistant Professor, Department of Surgery, University of Michigan.

spared the trauma of an immediate laparotomy. With a great increase in the number of "appendectomists", however, his advice was forgotten and whenever the patients' condition permitted operation, the perforated appendix, often no longer important, was removed, regardless of a widespread diffusing peritonitis. The results are familiar to all of us. A conservative average of the published mortality rates in this group treated by immediate operation is 20 per cent; in many cases very much higher figures are found.

Following the investigation of Coller and McRae[1] into the mortality of appendicitis at the University Hospital, over five years, the results of which were presented to this Society in 1930, it was felt that some change was imperative in the method of handling the late cases of appendicitis with general peritonitis. In this group the total mortality had been 52%, or 21% when one excluded those cases actually moribund on admission and who really received no treatment.

Prior to this time in our hands, occasional cases of appendiceal peritonitis had received a modified form of expectant treatment, though they were principally those cases in which it was felt an abscess had already begun to form, rather than those with an actively spreading peritonitis. Since 1931, the delayed operation has become in our clinic practically routine in instances where it is felt the process has extended from the right iliac fossa to the general peritoneal cavity. The improvement in the mortality rate appears to justify the rationale of this procedure.

Although no hard and fast rule can be propounded as to the probable duration of an attack of appendicitis before perforation will occur, it has been repeatedly observed to be most common during the third day. For practical purposes, we consider 48 hours the period beyond which we must suspect perforation and a spreading infection, though we have delayed operation in cases of obvious peritonitis less than 24 hours after the onset and have promptly operated upon patients 60 hours or more past the initial symptoms. The clinical findings, of course, largely influence the decision for or against immediate operation. The temperature in early acute appendicitis is rarely higher than 100° whereas rather soon after perforation 101° to 103° is commonly found. The pulse and respirations increase sharply in most cases when perforation of an acute appendix takes place, while at the same time the patient will usually experience sudden relief from the initial severe pain as the tension is decreased. From examination of the abdomen following a suspected perforation, the exact extent of the peritonitis may be a matter of doubt, though too often the generalized spasm, uniform tenderness and distended silent bowel, announce the presence of diffusing peritonitis.

The routine procedure employed in the delayed form of treatment conforms essentially with the measures suggested by Ochsner[4] in 1902. The patient is placed in bed in Fowler's position, heat is applied to the abdomen and a suitable narcotic, usually morphine, is given. If the stomach has not been emptied by emesis, this is done by gastric lavage and *nothing* is permitted by mouth, though parenteral solutions of saline and glucose are forced up to 5 liters a day. Too much emphasis cannot be laid upon the restriction of fluid by mouth, since even a small amount of water is enough to stimulate peristalsis and prevent the complete rest of the bowel, which is necessary for localization of the infection. Frequent careful examinations are essential for continuation of the proper treatment. In most cases, localization of the infection may be recognized by the formation of a mass in the lower abdomen, felt either by abdominal or rectal examination, usually 7 to 12 days after the onset of the attack. When a distinct mass is palpable, drainage is instituted, usually through a muscle splitting incision in the right lower quadrant, and the appendix is removed at this time only if it is easily accessible within the abscess cavity. When a search for the appendix risks breaking through the protective abscess wall, it is abandoned, and drainage of the abscess alone is done. The patient is then carefully warned that he must return within a three months period for an interval appendectomy. In a few cases, even with diffuse peritonitis, no localized abscess can be demonstrated clinically and after a satisfactory period with freedom from symptoms and normal temperature and leukocyte count, the patient leaves the hospital to return later for appendectomy.

In the vast majority of cases treated as outlined above, the improvement noted even within 24 hours is striking. On admission

the picture is one all too familiar: Hippocratic facies, dehydration from vomiting and fever which may reach 104°, rapid pulse and respirations, restlessness, and the rigid, diffusely tender abdomen of general peritonitis. With proper measures to insure rest to the patient and his gastrointestinal tract and by the administration of adequate parenteral fluids, with restriction of everything by mouth, a favorable change is often noted within a few hours. The temperature and pulse fall, the tongue becomes moist, the patient sleeps, and the abdomen, although still spastic, becomes less painful and tender to palpation. Heat undoubtedly contributes to the relief of the abdominal pain, and when applied adequately has some desirable penetration. We have abandoned the use of ice upon the abdomen, since it is uncomfortable, anesthetic, and in our belief has no favorable effect on the course of the disease.

MATERIAL

All cases of appendicitis during 1932 and 8 months of 1933 were scrutinized with special reference to mortality and a particular study made of the late cases in which the disease was no longer confined to the appendix. Four hundred seventy-six

TABLE I

Summary of general mortality rate in all forms of appendicitis over 20 months (1932-1933)

Type	Number	Deaths	Per cent
Chronic recurrent	476	1	0.2
Acute	152	1	0.6
Peritonitis (immediate operation)	6	1	16.6
Peritonitis (delayed operation)	46	4	8.6
Abscess	34	2	5.6
Total	714	9	1.2

chronic recurrent appendices were removed during this period with one death. This was due to peritonitis following a simple and easily done appendectomy with nothing to account for the unfortunate result. In the acute group, 152 appendectomies were done with one death in which some peritonitis was present but the occurrence of multiple liver abscesses was probably the immediate lethal factor.

Six cases with peritonitis following perforation of the appendix were operated upon within a very short time of admission to the hospital. The one death occurring in this group was in a child, very ill on admission, who was thought to have acute intestinal obstruction and operation was done for this diagnosis.

TABLE II

Showing data on 46 cases of appendicitis associated with peritonitis, treated by conservative measures and delayed operation.

Average age	19 years
Average duration of symptoms	63 hours
Average admission temperature	101.5°
Average initial W.B.C.	16,000
Development of mass	6.5 days
Operation, days after admission	10

The group with peritonitis in which the expectant treatment with delayed operation was used, consisted of 46 patients, the data for whom are shown in Table II. Four deaths occurred during this form of treatment under the following circumstances:

Case 1.—Female, fifty-five, obese, was ambulatory with frequent violent catharsis for five days following the onset of appendicitis. Her condition became steadily worse and death occurred on the second day of hospitalization. Autopsy showed little or no evidence of localization of the peritonitis with extension of pus upward to above the liver.

Case 2.—Female, twelve, was semi-comatose on entrance, which was 48 hours after the beginning of the attack. There was only meager evidence of diffuse peritonitis, signs of infection being almost entirely absent. Generalized convulsions were present early in the disease. Death was probably due to septicemia.

Case 3.—Female, fifteen, had responded well to conservative measures for two weeks and the lower abdomen was strikingly free of signs of peritonitis. A subphrenic abscess developed, however, and death occurred some time following drainage of this, twenty-seven days after admission to the hospital.

Case 4.—Male, eight, entered hospital 48 hours after the onset of appendicitis with a very severe infection. The patient was comatose and had generalized convulsions. Death occurred on the third hospital day.

DISCUSSION

From these data, we may point out certain facts in addition to the well known dictum that in acute and chronic appendicitis when the process is yet confined to the appendix, the mortality (0.3 per cent in present series) is almost negligible, but that this mortality is shockingly increased by perforation of the appendix and escape of the infection into the free peritoneal cavity (8.1 per cent) Table III. Cases of diffusing peritonitis from a ruptured appendix in which a precipitous operation is done for removal of the appendix have a mortality

of from 18 per cent to 50 per cent in the hands of various writers. This can hardly be accepted as the most desirable form of treatment when one compares available mortality figures for a similar group of cases treated by delayed operation. Guerry[2] reported a most striking series of 123 cases of diffuse peritonitis treated by delayed operation with only two deaths, or a mortality of 1.6 per cent. Love[3] found the mortality in three London hospitals to be 3.8 per cent when conservative treatment was adopted, but more than twice as great when immediate operation was done. In all available reports, the results compare favorably with these and bring the mortality to less than 10 per cent by the delayed form of treatment.

TABLE III

Comparative mortality before and after perforation in appendicitis.

Type	Number	Deaths	Per cent
Chronic recurrent and acute (infection confined to appendix)	628	2	0.31
Peritonitis and abscess (after perforation)	86	7	8.1

Delayed operation has a favorable effect not only upon the actual mortality of peritonitis in appendicitis, but limits greatly the occurrence of immediate complications and remote sequelæ. Paralytic ileus with its futile enterostomies has become rare as a complication of appendiceal peritonitis since our adoption of the conservative form of treatment, and fecal fistulæ and secondary abscesses are unusual.

Since the layman has become educated to the principle of emergency operations for appendicitis, a postoperative fatality is often viewed philosophically, since it is felt that everything possible has been done for the patient. In criticism of the delayed operation regime, it is frequently pointed out that, should the patient die under this form of treatment, as indeed some do, the consensus of public and professional opinion would be condemnation since an operation was not done. One can meet this only by the stoutest courage of his convictions and the implicit faith of the patient and his family. The fear that one's professional reputation may suffer from delaying operation in diffusing peritonitis may be dismissed, since the profession cannot continue to disregard the abundant and increasing evidence that precipitous operation in ruptured appendicitis with general peritonitis seldom does good and in most instances greatly reduces the chance of recovery.

Objection to delayed operation has been offered on the grounds that the patient having left the hospital with his appendix still within him, it may be difficult to induce him to return for appendectomy before the occurrence of further severe attacks. This is, we feel, largely a theoretical criticism since with one or two exceptions we have found patients willing and even eager to return for removal of the appendix, to avoid a second perforation which may be fatal.

The conservative treatment of appendiceal peritonitis does not in any way carry the implication that it is medical rather than surgical treatment, though for the time it may be non-operative. The regime is practical only in a hospital, under the constant vigilance of a surgeon, whose judgment and acumen will often be taxed to the utmost to secure a successful end result.

CONCLUSIONS

1. General peritonitis associated with appendicitis has a mortality rate of 20 per cent or more when immediate operation is done for the removal of the appendix or drainage of the abdomen.

2. Conservative treatment, with delayed operation, permits localization of the diffuse process and the formation of an abscess which can be drained with minimal risk to the patient.

3. For all forms of appendicitis over a twenty-months period, the general mortality was 1.2 per cent in 714 cases.

4. For the same period, 46 cases with diffuse peritonitis associated with appendicitis were given expectant treatment and operation was delayed. Four deaths occurred, a mortality of 8.6 per cent.

5. The judicious use of the expectant treatment in diffuse appendiceal peritonitis is a sound surgical procedure, and may be regarded as a powerful weapon to reduce the present high death rate from this disease.

BIBLIOGRAPHY

1. Coller, F. A., and McRae, C. C.: Jour. of Mich State Med. Soc. (May), 1931.
2. Guerry, L. G.: Annals of Surg., 84:No. 2 (August) 1926.
3. Love, R. J. Mc: Lancet, 216:No. 5504 (Feb. 23), 1929.
4. Ochsner, A. J.: Amer. Jour. of Surg and Gynecol., 15:84, 1902.

A NEW METHOD FOR THE STUDY OF RETINOSCOPY

ROBERT NEWTON MONFORT, M.D.†
WOLVERINE, MICHIGAN

Accurate refraction implies flawless retinoscopy. The truth of this statement is never seriously contended. But retinoscopy in contradistinction to the use of the test card, astigmatic chart and Maddox rod, is never mastered in a day. A more hopeful method for the study and practice of retinoscopy therefore is presented. It contrasts sharply with the present practice of inveigling friends, relatives and poor patients into sitting for hours in red-eyed irritability, squinting and staring with an ever changing accommodation that is in turn a constant source of embarrassment to the young refractionist. There are schematic eyes to be had on the market; but after all, they are schematic; and they cost money.

The method to be described needs only a darkened room and an ordinary mirror. S. L. Brug outlined some such method a few years ago, but he was concerned primarily with estimating one's own refraction, a practice never to be engaged in seriously, since the use of a cycloplegic, so necessary to correct refraction, is impossible here; or at least the necessity for dilating one pupil at a time makes the practice undesirable. It is to be understood then that this method is advised for practice purposes only, is subject to many gross (though not disturbing) errors, and is to be dispensed with as soon as one has mastered the fundamentals of retinoscopy.

The student takes his place before a mirror hung flat against the wall of a darkened room. The eye of the observer may be at any reasonable distance from the mirror, but one-half meter is suggested since the sum of the real and mirrored distances is thus one meter, the usual distance employed in retinoscopy. The light from the retinoscope (electric) before the right eye is allowed to fall upon the mirrored image of the left eye. The pupillary area will be seen to light up with startling clarity. By tilting the mirror in various directions, the non-illuminated area or "shadow" then may be thrown across the pupillary screen and studied. Different strength lenses are then held with the left hand before the left eye and the effects noted. By employing a trial frame, one may deliberately reproduce any type of ametropia and then by holding correcting lenses in position, refract the error. The rays of light from the retinoscope falling upon the mirror, are reflected back into the left eye, the pupil of which thus illuminated becomes visible in the mirror. We refract this pupillary image. Emmetropic eyes yield parallel rays, hyperopic eyes divergent rays, myopic eyes convergent rays. The movement of the "shadow" is seen to be in the same plane as it would be in ordinary refraction.

I suggest use of the cylinder in beginning your studies by this method. Place a number five plus cylinder in the frame before the left eye. Close the left eye and look intently at the left evelid through the sight hole in the retinoscope held before the right eye. Be sure the light is shining directly on the left eyelid. Then open the left eye. This is the proper way to "find" the left pupil. With the cylinder designated in place, note the prominent band of light subtending the axis of the cylinder. Turn the cylinder around at different axes and practice finding the sharply demarcated band of light.

Before beginning practice with the trial frame and trial lenses, the examiner determines his own refractive error. If he already is wearing accurately fitted glasses, it will be interesting to compare the strength and denomination of these lenses with those which he would prescribe if following the formula obtained by use of the retinoscope before a mirror at one-half meter. The value of a cycloplegic becomes at once evident, since self-retinoscopy without a cycloplegic, consistently yields stronger lenses in myopia and weaker lenses in hyperopia. For example, my own refractive findings under homatropin are o.d. and o.s. plus .50 sph plus .25 cyl axis 90; whereas with the retinoscope before a mirror, I am at all times able to obtain o.d. and o.s. minus .25 sph minus .25 cyl axis 180, after subtracting one diopter for the one meter distance between the eye and its mirrored image, and

†Dr. Monfort is a graduate, A.B., University of Michigan, 1925; M.D., Detroit College of Medicine and Surgery, 1931. He served a surgical internship at the Nassau Hospital, Mineola, Long Island, N. Y.

after correcting for the hyperopic error in the examining eye. An active ciliary muscle apparently accounts for enough lens change to make these hyperopic eyes appear myopic. Incidentally, no more serious mistake is made than the prescribing of near-sighted lenses for hyperopics.

The examiner has determined his own apparent error before the mirror. Let us imagine the left eye *aparently* slightly myopic, the shadow in the vertical meridian moving *with* and rapidly, using a plus 1.00 sph but *against* and rapidly with a plus 1.25 sph. Properly, the refractive error in this meridian would be estimated at plus 1.12. However, for practical purposes the lowest figure (plus 1.00) is employed. In the horizontal meridian, let us say the shadow moves *with* and rapidly using a plus 1.25 sph, and *against* and rapidly with a plus 1.50 in position. The examiner's retinoscopic findings before the mirror and without subtracting for distance or without correcting for the error in the opposite eye, are plus 1.00 sph over plus 1.25 sph, *i.e.* plus 1.00 sph plus .25 cyl axis 90.

Now make the eye artificially hyperopic by placing in the trial frame before the left eye a minus 1.00 sph and minus 2.00 cyl axis 90. Attempt to correct this error by placing different strength plus spheres before the eye. The shadow will be seen to move *with* and somewhat slowly in both vertical and horizontal meridians. A prominent band of light also will be seen subtending the vertical meridian. One may now proceed with plus cylinders of increasing strength and placed in the meridian of the light band, or one may refract each meridian separately with plus spheres. In the latter instance, a plus 2.00 sph will be seen nearly to stop the movement of the shadow in the vertical meridian, a plus 4.25 sph correcting in the opposite meridian, *i.e.* plus 2.00 sph plus 2.25 cyl axis 90. Subtracting the examiner's own correction, the result reads plus 1.00 sph plus 2.00 cyl axis 90, which matches the strength, denomination and axis of the lenses placed for trial. In this manner, all types of combinations of lenses may be used for experimentation, always remembering to subtract one's own *apparent* correction from the result.

Practice with the method outlined is particularly valuable to those interested in retinoscopy and the fogging method combined, since in both instances, the light from the retinoscope is directed upon the pupil from the side and the pupil is not artificially dilated. Starting with a strong cylinder where the band of light shows up unmistakably, one can slowly reduce its strength to a point where the band is seen only with difficulty, thus improving ability and confidence. Refracting with cylinders at the outset may be tried, and results proved in an instant. There is no question at any time for argument, no pitting of one man's findings against another. The answers are always in the trial frame, and trial lenses do not change their shape at every sudden whim of a capricious ciliary muscle.

SUMMARY

1. Self-retinoscopy before a mirror is useful for teaching purposes.

2. This method should not be used for estimating one's own refraction.

3. The positive value of the cycloplegic in eye work is demonstrated.

4. The method is particularly interesting when one is attempting to master retinoscopy and the fogging method combined.

REFERENCE

Brug, S. L.: New shadow test by which one can estimate his own refraction. Nederlandsch Tijdschrift voor Geneeskunde Eerste Helft, No. 2, 1927.

PURE CRYSTALLINE CARBONATE URINARY CALCULI CASE REPORT*

GEORGE C. BURR, M.D.,† and WILLIAM R. FLORA, M.D.‡
DETROIT, MICHIGAN

Urinary calculi are usually built up from a primary deposit or nucleus of mineral salts, fibrin, or foreign body, so that the secondary formation may form the bulk of the stone, giving no clue as to the composition of the original central mass. They often contain many urinary constituents and are influenced as to color by dyes taken by mouth or introduced directly into the urinary tract, or by hemoglobin deposits during the building up process, producing a color entirely foreign to that of the crystalline components. Thus, a stone's color is determined by many factors aside from that of its crystalline and colloid constitutents.

Urinary calculi are by no means limited to man. They are found frequently in mammals; herbivora as well as carnivora, and evidence produced in the past few years of their artificial production in rodents indicates that vitamin and food deficiency play an important role in their development. They are rarely found in animals in the wild state, and practically never in the lower forms.

By far the greatest number of urinary calculi in the human have as their nuclei, uric acid, whereas, the greatest content of the secondary formation is built up of alkaline earth or triple phosphates, often with admixture of calcium oxalate or ammonium urate. In addition to the salts mentioned, the more uncommon constituents of calculi are calcium carbonate, xanthin, cholesterin, cystin, urostealith and leucin. Of these, the first named, due to its high molecular weight, is the only one capable of arresting the x-ray. This characteristic of so many types of stone accounts for the relative high incidence of negative roentgenographic findings in calculus disease of the urinary tract.

Any urea splitting organism playing a part in a urinary infection might change the secondary formation entirely. Thus, if oxalates or urates are being thrown down in an acid or alkaline urine, and such an infection occurs, the peripheral layer of the stone may be largely made up of phosphates or even carbonates, it being a well known fact that these two salts are precipitated in an alkaline medium. In order to ascertain the composition of urinary calculi, they should be sectioned to distinguish the nuclear portion from the peripheral. Chemical tests are quite necessary if the true constituents are to be recognized.

HISTORY

The patient, aged thirty-one years, was admitted to Detroit Receiving Hospital December 12, 1932,

Fig. 1. Pure crystalline calcium carbonate calculi.

with the general complaint of an aching pain in the right lumbar region with vomiting, fever, pain over the bladder region and inability to void. Pain started two months ago and was aching in character with radiation to the right hip. There was no hematuria; no previous similar attacks. She passed several good sized calculi two months ago and three weeks previously had miscarriage at three months gestation period. Temperature 98.6, pulse 84, respiration 18, on admission. She gave a negative past history but stated that she had "swollen intestines" five years ago, when she was confined two weeks.

Physical examination revealed a young adult obese colored female, lying in bed, not acutely ill. Phys-

*From the Urological Service, Detroit Receiving Hospital, Detroit, Michigan.

†George C. Burr is a graduate of the Detroit College of Medicine and Surgery, 1912; member, American Urological Association and College of Physicians and Surgeons, Sask.; Registrant, British Medical Council; Associate Professor, Urology, Detroit College of Medicine and Surgery; Associate Attending Urologist, Grace and Receiving Hospitals, Detroit; Fellow, American College of Surgeons.

‡William R. Flora is a graduate of the University of Michigan Medical School, 1930; Resident in Urology and Proctology, Detroit Receiving Hospital, Detroit.

ical examination was essentially negative, except the abdomen which was moderately distended, rounded and symmetrical. There was marked tenderness over the right renal area and right flank, tender to Murphy's percussion over the right lower rib margin. There were no palpable masses. Dullness over bladder not marked. Pelvic examination: Bladder distended; purulent discharge; cervix in midline. Uterus and adnexa normal. Reflexes normal.

Due to the similarity of the calculi to beach pebbles, it was at first believed that the patient was a malingerer. Subsequent laboratory tests, however, bore out the fact that we were dealing with an unusual type of urinary stone. Cystoscopy was carried out with negative findings, apart from a moderate cystitis. There was no obstruction to the passage of catheters up either ureter and flat plates were negative for evidence of stone. Bilateral pyelograms and ureterograms were normal. Catheterized bladder urine was slightly acid in reaction and contained a few pus cells, microscopically.

Two of the stones were divided by means of a saw and the crystalline appearance of the substance was noted. No nucleus could be seen. The divided calculi were placed in a weak hydrochloric acid and caused violent effervescence with total solution except for a few remaining fragments of fibrin which were in this case the primary nuclei for the stone formation. When in pure crystalline formation, calcium carbonate forms the hardest known calculi.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

Mention was made last month of milk-borne typhoid fever outbreaks, one at Alma and St. Louis and the other at Monroe and vicinity. Since then, these outbreaks have become more extensive than was anticipated. It appears at present that the Alma-St. Louis epidemic will account for more than 40 cases, and six deaths have already been recorded. At Monroe the cases will total approximately 40. These outbreaks are severe indictments of the use of raw milk in communities where pasteurized milk is easily obtainable.

The average number of cases of typhoid recorded in the state annually for several years past would provide about one case only for each practicing physician each decade. Thus, to the individual physician, typhoid may seem an extinct disease, but to the people of Alma and St. Louis and Monroe, and more especially to the families in which cases and deaths have occurred, typhoid is still a reality.

Because of the outbreak of encephalitis in St. Louis, Missouri, and vicinity, the attention of the public everywhere as well as that of physicians has been focused on this disease. This unusual attention has brought to light more cases and resulted in more reports in the state during recent months than is usual.

There is some question as to whether all of the cases reported as encephalitis have been correctly diagnosed and, furthermore, some question as to the etiology of those cases which may properly be termed encephalitis. There is also some question as to whether any of these cases have the same etiology as the outbreak in St. Louis. Regardless of this, the situation in Michigan has not at any time appeared alarming. Cases reported from July 1, 1933, until the end of September total 60.

Dr. Arthur W. Newitt, Midland County Health Officer, and Dr. Leslie L. Lambert, Genesee County Health Officer, have been awarded fellowships by the Rockefeller Foundation and will attend the School of Hygiene and Public Health at Johns Hopkins University during this school year.

Dr. David Littlejohn will serve as acting health officer in Midland County during Dr. Newitt's absence and Dr. Gordon B. Moffatt will be acting health officer of Genesee County while Dr. Lambert is away.

A somewhat unusual example of the constant demands upon the Michigan Department of Health for certified copies of vital records occurred recently when one of the largest motor car companies in the state issued an order requiring all employees to furnish certified copies of records of their birth or citizenship. The sending out of

these records, in addition to the routine work of the bureau, taxed the capacity of the staff.

The Department has in its vital statistics vaults seven and one-half million records. Due to the system of birth registration in operation prior to 1906, probably not more than from 60 to 70 per cent of the births were recorded. A law passed that year required the reporting of births by the doctor or attendant.

Because of the ever-increasing demand for birth records to prove the many duties and privileges of citizenship such as inheritance, employment, voting, passports, etc., the Legislature of 1931 enacted a delayed birth registration law which reads in part as follows:

"Section 1. Whenever a birth that occurred in the state of Michigan subsequent to 1867 is not on record in the office of the state health commissioner, and the attending physician is not available to make the registration, application for the registration of the birth may be made by the interested person to the judge of probate, either of the county of residence or the county of birth.

"Section 3. The probate judge shall examine the application and take such testimony as may, in his judgment, be necessary to establish the facts. If he is satisfied that the facts are as stated he shall issue an order to the state health commissioner that such birth be registered."

While this procedure has caused a great increase in the work of the Bureau of Records and Statistics, it is believed to be justified by the importance of the service given to the public.

Generally speaking, there is an increasing realization on the part of physicians of the necessity of promptly and correctly recording births.

Failure to file birth certificates cost a physician in a southeastern county $61.70 recently, $5.00 and costs of $3.35 for one certificate and $50 and costs of $3.35 for the second missing record. At that stage of the court proceedings, the clerk and the doctor reached an agreement that if the balance of the unfiled birth certificates, some twenty-seven in all, were recorded within five days no further warrants would be issued. The physician paid the fine in preference to going to jail for thirty days.

Prosecution by the Department is always a last resort, following repeated delinquencies, repeated warnings, and investigation by the Department's law enforcement officer.

Dr. Goldie Corneliuson of Ishpeming has been appointed to the staff of the Bureau of Child Hygiene and Public Health Nursing to succeed Dr. Edna Walck who resigned in July to go into private practice. Dr. Corneliuson's work will be the teaching of Mothers' Classes in prenatal and child care. She is a graduate of the Medical School of the University of Michigan and was formerly on the field staff of the Children's Fund of Michigan. Dr. Corneliuson's first series of classes will be in Menominee County.

The series of Women's Classes conducted by Dr. Ida Alexander in Lapeer County has been completed, and Dr. Alexander is now starting a similar series in Calhoun County. Unusual interest was displayed by the women in Lapeer.

Child Care Classes are being conducted in Midland and Clare Counties by Bertha Cooper, R.N., and in Manistee County by Nell Lemmer, R.N.

A prenatal and infant welfare program in Huron County is being carried on by Julia Clock, R.N.

Over one hundred prenatal patients are under supervision in Isabella County in the prenatal nursing program carried on by Martha Giltner, R.N., in coöperation with the County Health Department. Work began on July 15.

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

F. A. BAKER, M.D., Acting Chairman.....Pontiac
A. S. BRUNK, M.D.....Detroit

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

NOTICE TO CONTRIBUTORS

Owing to the limitation of space, preference will be given brief articles.

Manuscripts should be typewritten, double spaced, on one side of white paper 8½x11 inches. There should be a margin of 1½ inches on the left side of page.

All photographs should be clearly focused prints on glossy paper (do *not* send negatives). The standard 8x10 or 5x7 size prints are recommended.

All line drawings (charts, diagrams and sketches) are to be drawn with India ink on stiff white paper or Bristol board. Drawings are to be made with pen lines of suitable thickness to allow reduction to the width of one or two columns, as the case may be, of the Journal. Do *not* send drawings in colored ink.

Illustrations will not be accepted unless they reach a certain standard of excellence technically and present an attractive appearance. Illustrations, both photographs and drawings, are to be separate from the text. These each should be labeled on the back with the Figure number, legend, title of paper and the author's name.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

EDITORIAL . . .

NOVEMBER, 1933

SOCIETY MEMBERSHIP

The major portion of this number of the JOURNAL is given over to the deliberations of the House of Delegates, the minutes of the council and reports, which are perhaps of greater interest to the medical profession of the state than anything of a similar nature that has occurred in the past. There is demand for a larger JOURNAL as we intimated in the October number. This may be made possible only by an increase in revenue from advertising and by an affiliation into active membership of every eligible member of the medical profession of the state. We are socially minded to the extent that we need the active support and cooperation of every one and every one will be benefited by active association with the Michigan State Medical Society.

Lapse of membership means denying oneself fellowship not only with your County Medical Society but with the State and the American Medical Association. It means also higher costs for medical defense insurance. Why not reduce such expense by maintaining your membership in your county society?

POST-GRADUATE MEDICINE

If the experience of the medical profession has taught us anything it is that physicians cannot stand still intellectually. The most sorrowful object is the man who, having graduated from college, considers himself educated and, henceforth all desire satisfied, puts forth no further effort for advancement. He becomes a so-called practical person who proceeds to practice the blunders and mistakes of his ancestors. Perhaps at no other time in the history of medicine is the law of the survival of the fittest so much in evidence. He who fails to maintain his mental equipment for medicine or for anything else falls behind in the race.

About seven years ago, under the leadership of Dr. J. D. Bruce, director of post-graduate medicine at the University of Michigan, and since then vice-president of the University, the idea of post-graduate training in medicine, surgery and allied branches was conceived and under the cooperation of the University and the Michi-

gan State Medical Society it has become a very vital fact. From small beginnings and an enthusiasm well meant but perhaps somewhat vague, the profession has become united in its eagerness for post-graduate work which has been brought virtually to the doors of the majority of the members of the society.

At a recent meeting of state secretaries and medical editors of the state medical societies of the United States, Dr. Dean Lewis, president of the American Medical Association, deplored what he believed to be a fact that over the United States there was little or no opportunity for post-graduate teaching of medicine. All emphasis was placed on undergraduate teaching. The president's (A.M.A.) statement is a compliment to what has been accomplished in this state in the matter of post-graduate instruction. An enthusiastic gathering of those who took part in post-graduate instruction was held recently at the Wayne County Medical Society club rooms. All acquiesced or expressed themselves in favor of a more extended program for the future. The time is past when the necessity for such teaching is discussed. That is taken for granted. The question at present is a matter of the most effective plan to use the facilities at Ann Arbor and Detroit as well as other available medical centers of the state.

The short intensive course has become popular with perhaps the majority of physicians: yet those who can devote the time may go on to a graduate degree in some department of medical science. We are given to understand that such a degree may be obtained extramurally by physicians or surgeons who attain the required standard. There is no danger, however, of acquiring such a degree cheaply. They will go to exceptional students, as they have always been awarded in the past.

"HEALTH INSURANCE" AGAIN

The subject of health insurance has received the attention of the medical profession either in Europe or America for many years, yet there seems wholly lacking any unanimity of sentiment among the profession even where it has been in operation. The House of Delegates of the Michigan State Medical Society has gone on record as not approving the principle of health insurance. We believe the spirit of the resolution to be in effect that more study of the problem is necessary as well as more careful observation of any further social or economic change that may be in the offing, before a definite policy may be adopted.

A few months ago Detroit was visited by the Ex-Deputy Minister of Health of England who had recently retired from office. His account of the working of health insurance in Great Britain was as might be expected, favorable. The reader is referred to the brief report of Dr. McLeary's informal address*. In a recent number of the *British Medical Journal*,† Sir Henry Brackenbury writes on the subject "What is Wrong with National Health Insurance?" Great Britain has had national health insurance for a period of twenty-one years. With this period in mind Sir Henry comments as follows: "During these twenty-one years, quite apart from the cost of benefits of a medical nature, there has been spent in small pittances and on the machinery engaged in their distribution, no less than $500,000,000. If in the year 1912 a carefully selected body of persons had been told that a very large sum of money was placed at their disposal to expend by 1933 in the promotion of health and the prevention of disease in this country, over and above whatever provision was made for medical attention to the people in cases of actual illness, can it be doubted that they would have found much better, more profitable, more effective directions for its expenditure? Yet during the next twenty-one years an even larger sum of money may continue to be disbursed in similar ways." . . . And again, "Already a considerable number of insured persons have fallen out of medical benefit by reason of unemployment. Thus we have raised the question of cost even considering that the mere mechanism of administration has been accomplished without any charge of misappropriation or excessive administrative salaries."

It appears that only those employed may benefit from health insurance. When unemployed they "fall out of medical benefit by reason of unemployment." So also says Dr. McLeary.‡ Does not then the medical

*Editorial, Journal Michigan State Medical Society, July, 1933, page 406.

†*British Medical Journal*, June, 1933.

‡See Journal of Michigan State Medical Society, loc. cit.

care of indigents fall back upon the doctor without money and without price?

Already in a neighboring state a number of commercial insurance companies have attempted the subject of health insurance, but all are reported to have failed. This is of course voluntary health insurance. So far as we know compulsory health insurance has not been tried in this country. Voluntary insurance of any kind, health or accident, or even automobile, is a matter for the prudent. We strongly favor it. The vast majority of mankind, however, will take a chance if the alternative is to cost something the returns of which are not immediate.

One editorial or one or a dozen articles on the subject of health insurance will not exhaust it. These pages are open for brief articles or communications designed to produce light rather than heat. The committee on medical economics who have given the subject careful study are perhaps closer to it than the rest of us. Out of discussion, however, good must come.

MISERY'S COMPANY

The medical profession is painfully aware of the multitudinous factors that are making medicine an unprofitable vocation—no need to repeat them. At a recent meeting of lawyers in Grand Rapids, Mr. C. E. Martin, president of the American Bar Association, gave an address in which he deplored the disintegration of the legal profession. He has stated the various factors inimicable to the practise of law in two paragraphs which we here present:

"We have coöperation between lawyers and lay agencies in credit and collection matters; automobile associations agree to and do sell the work of lawyers prior to the happening of a cause of action; testamentary work and the administration of estates generally is rapidly finding its way into the trust departments of companies organized for that purpose; title companies are encroaching upon the domain of the lawyers in various cities and combatting with him the right to practice law in that realm; corporations are being formed in Washington and elsewhere to handle new business brought about by the recent Federal legislation; laymen are admitted to practice before some of the departments in Washington, particularly on tax matters, on a par with members of the legal profession; and, in the realm of international law, we now have practitioners who have never been members of the bar.

"The economist and the sociologist each is taking the place of the lawyer in many fields of research previously occupied exclusively by men of legal minds."

Evidently in spite of the fact that lawyers dominate legislatures, both state and national, they have failed to control legislation in their interests.

THE QUEST OF THE GOOD LIFE

"At a dinner of economists, the other evening, a physician, a dealer in personal rather than in mass happiness, rose to declare that the entire financial discussion had left him cold. The real problem of society today, he asserted, is to offer youth a purpose in life. Society is not answering the questions of youth! Why should I prepare for life? What is it all about?"—Editorial in September *Forum*.

It pleases us that this statement is made by and about a physician. A great deal of the disappointment in regard to education is due to false ideals on the part of parents and would-be students alike. With parents it is a matter of getting their children into some genteel, so-called white-collared employment. They despise honest manual labor, to which perhaps from one-third to two-thirds of the young people who attend college are best adapted.

But the notion of an education that will put the younger generation in a position to earn a living, rather than to get the most out of life, is not new. Carlyle and Ruskin harangued against it in the late Victorian decades. Carlyle deplored the idea of an education, the only purpose of which was to enable the son to drive a gig; the more modern application would be an education that would enable the boy to own an automobile. Ruskin's opposition was to the idea of education that prevailed in his day, the sole purpose of which was to enable the aspirant to get on in society. He pleaded for an education good in itself which would enable one to get more satisfaction out of living.

Of the number who attend the colleges of the nation, it is estimated that approximately a third get nothing at all out of their four years attendance. A third put in a good time with extracurricular activities so-called, which are of doubtful value, and a third of the number are good students. The minority get some zest out of life. Everything with which they come in contact is fraught with a significance that cannot be measured in dollars. What a world of interest there is in history, literature in its broadest sense, in art, in science. Medicine and law, to mention but two professions, have their cultural side which is sufficient

to provide never-ending interest apart from the means of providing a livelihood.

Nearly half a century ago, Sir John Lubbock wrote a charming little book, "The Pleasures of Life." It has become a classic, a work of perennial interest for one's leisure hours.

> "To all the sensual world proclaim
> One crowded hour of glorious life
> Is worth an age without a name."

The "pleasures" which Lubbock emphasizes are not of the sensual kind, but excursions and adventures into the realm of thought. Another work that deserves to be read and reread is "The Quest of Happiness" by Bertrand Russell. As a rule books with such titles by unknown writers are scarcely worth the reading. However, the life and background of such men as Sir John Lubbock and Bertrand Russell, as well as the great ability of each as a writer, render their work invaluable.

HEMOSTASIS*

The three most outstanding achievements in the history of surgery have been the discovery of practical and effective anesthesia, the prevention of infection through antiseptic and aseptic methods, and the development of the art of hemostasis. The first and second of these are relatively modern, contributions of the last hundred years. The last, however, has reached its present state only after a long and varied history having its beginning in ancient times.

Early types of hemostasis, such as cauterization and the use of styptics, tended toward the diminution, not the complete prevention, of the flow of blood. Their inefficiency was accompanied by a great deal of pain. It was an attempt to reduce pain which first caused a hardened war surgeon to oppose cauterization and to substitute ligation. In 1552, Ambroise Paré amputated the leg of a French army officer, using the ligature, instead of hot irons, to check hemorrhage. As early as 1537, Paré had objected to the use of cautery for minor wounds, but had hesitated to break away from traditional methods for major operations. In 1564, he published the second edition of a small anatomy which had first appeared some fifteen years before. In this, he advocated the abandonment of all cautery in favor of ligation. During the next century, the adoption of the use of ligature was the subject of much discussion, both favorable and adverse.

In the seventeenth century, another French army surgeon, Morel, of whom little is known, made a valuable contribution to hemostasis. His contribution was the tourniquet. Bandages above and below the line of incision had been used for some time, but the twisting of a stick in the upper bandage, actually stopping the arterial flow was a new discovery.

Even with the encouragement furnished ligation by the tourniquet, the use of chemical styptics was still in the ascendency in the first part of the eighteenth century. Several factors contributed to this condition. The primary objection to the widespread adoption of the ligature was the fear of causing convulsions. Secondarily, the current idea that the vessels required strong ligatures to prevent hemorrhage resulted in the leaving of much unnecessary material in the wound with the consequent retarding of the healing process. The beginning of the nineteenth century saw definite attempts to improve the method of ligation with a view toward greater efficiency. It was generally recognized by this time that elimination of the trailing ends of the ligature would enable the wound to heal more rapidly. In 1806, an American surgeon, Phillip Syng Physick, experimented with a buckskin thread with the ends cut short. A modification of this method perfected by Lord Lister later in the century resulted in the modern type of ligation.

Undoubtedly the most important contributions to the development of hemostasis in the latter half of the nineteenth century were the result of Lord Lister's experiments. In 1865 and again in 1876, Lister published papers on improved ligation, including both material and method. The prevention of an unhealthy condition of the wound and freedom from secondary hemorrhage were his objectives. These factors after tireless and repeated experiments with various materials, and assiduous application of the antiseptic system, were reduced to a minimum by the use of carbolized catgut.

In addition to Lister's contributions, the

*It is our purpose to publish brief historical sketches of methods and the development of devises that have enabled medicine to become more scientific. Instead of purely biographical sketches of personalities these articles will emphasize the inventions, if such they may be called. The December Journal will contain a historical sketch of the development of the microscope which has meant so much to the evolution of medical science.—Editor.

nineteenth century witnessed the perfection of the hemostat. Like the history of ligature itself, the development of modern arterial forceps is a long story. The forerunner of the artery forceps, the dental forceps, appears to antedate written history. Paré adapted the forceps to the use of ligation with his *"bec de corbin"* (crow's beak), an instrument used for drawing out the vessel preparatory to ligating it. Modifications of the forceps were thereafter used, but it was not until the nineteenth century that the dissecting forceps with a closing catch was perfected similar in principle to the hemostat. By the end of the nineteenth century, the importance of hemostatic clamps was universally recognized, but even as late as 1880, few hospitals in the United States possessed as many as six; two, three or rarely four hemostats were deemed sufficient for an operation.

During the sixteenth century, the surgeon was necessarily hampered by the technique of operation; in the twentieth century, due to the vision and accomplishment of these early workers, the surgeon's art has attained a degree of perfection that seems almost impossible of further improvement.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL ASSOCIATIONS

The Annual Conference of Secretaries and Editors of the various state medical associations throughout the United States was held at the Palmer House, Chicago, September 22 and 23. This is an event which the various secretaries and editors look forward to with a great deal of interest each year. Michigan was represented by Dr. Burton R. Corbus, Chairman of the Council of the Michigan State Medical Society and Drs. F. C. Warnshuis and J. H. Dempster. The programs presented at each yearly conference deal with economic and social phases of the practice of medicine rather than scientific papers. The Bulletin of the American Medical Association is the medium by which the papers read at the conference are conveyed to the members of the medical profession of the United States. The membership of the Michigan State Medical Society is therefore urged to read these papers as they appear in successive Bulletins in as much as they contain matter of vital importance to every member of the Society. In view of this fact we will not anticipate them by any lengthy abstracting.

The first speaker was Dr. Dean Lewis, president of the American Medical Association, whose subject was "Quality of Medical Care" which he claimed was hard to attain and hard to maintain owing to the different factors concerned, namely the hospital, the medical school as well as the doctor himself. He spoke of the difficulty in connection with medical schools owing to inability to correlate clinical teaching and the teaching of pathology. The lack of control militated against the quality of medical care. A few years ago emphasis was placed upon focal infection, the opsonic index, phylacogens and vaccines. Each had its day and it is not too much to say all had some merit, but all were more or less fads. This fact indicated a necessity for more or less definite therapeutic procedure.

Dr. Burton R. Corbus

Dr. Burton R. Corbus, re-elected by the council as chairman of the council as well as the executive committee, is so well and favorably known among the medical profession of the state that little can be said by way of introduction. As a presiding officer the conduct of the council and the executive meetings are characterized by dispatch. Dr. Corbus is a master of parliamentary procedure and is always ready with tactful suggestions that aid in shaping a resolution or in phrasing a communication.

The question arose as to how it was possible to maintain medical efficiency after graduation. Hospitals were closed to many physicians. The speaker went on to emphasize the importance of postgraduate studies and particularly the study of gross pathology which was the basis of clinical medicine. He emphasized the importance of facilities for demonstration. Visualization, he said, was worth a dozen papers. There should be facilities for postgraduate instruction in as much as undergraduate departments of medical schools were not in a position to give it any attention. Medical men should have an opportunity to study apart from association with undergraduates. Dr. Lewis spoke approvingly of the work of the Cancer Commission in California which aimed at the education not only of the doctor

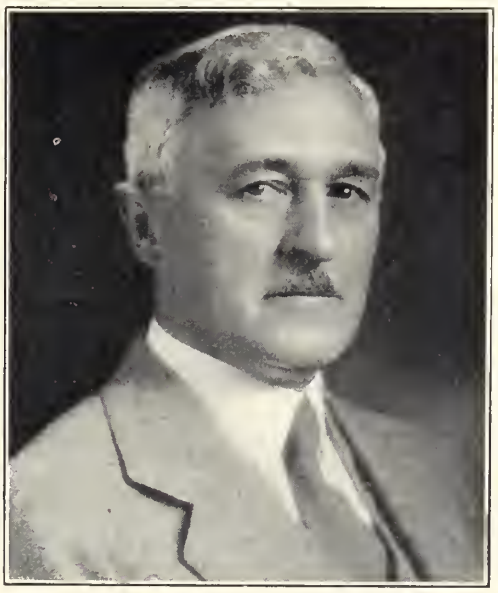
but also of the public and which aimed also at the standardization of treatment of cancer.

Regarding quality of medical care the speaker thought it was better at the present time than it has ever been but that it required constant vision and effort in order to improve it.

vey. Dr. Warnshuis went on to state that the doctor is today confronted with the spectre of insecurity. He was beset with fears as to whether he would have an opportunity to earn a livelihood, and whether he would be physically able to grasp the opportunity if given him. He spoke in the introductory portion of his paper of the economic problems that beset the medical profession. The role of physician was a dual one. While he and his family are part of the great social fabric, custom had decreed that this phase of his life should remain in the background. The doctor's increasing interest in his economic welfare arising out of the desire to obtain comfort for his family and himself is evidence that the old custom was waging a losing battle. He spoke of the fact that the costs of medical care were wont to be met after other daily basic needs have been provided. This fact disposed the committee nominated by the Michigan State Medical Society to undertake an analysis of the economic status of the various elements of the population which were potential recipients of medical care. The speaker went into detail in describing the motives which prompted the comprehensive study that had been undertaken by this State. The committee to survey state medical services and health agencies began its work in 1931 and after two years presented its

Dr. James D. Bruce

Dr. J. D. Bruce has tendered his resignation as member of the council of the Michigan State Medical Society, which includes also the chairmanship of the publication committee. The Journal has been one of Dr. Bruce's interests for a number of years and the profession is indebted to him for his wise counsel and advise in matters of policy. As keen as has been his interest in the Journal of the Michigan State Medical Society, he is recognized through the state—we might say the United States—for his efforts in inaugurating and advancing post-graduate medical education suitable to the requirements of men in the active daily practice of medicine. Michigan has been a pioneer in this field. Dr. Bruce left a lucrative surgical practice in Bay City to come to Ann Arbor as director of the department of post-graduate medicine when it was in its infancy, and when the need was by no means as keenly realized as it is today. Manifesting executive ability of an unusual degree, he was made vice-president of the University. He will now undertake an intensive study of graduate medical education with the view to extending its scope. This will necessitate travel and investigation of facilities as they obtain in other medical centers throughout the United States and Canada. While losing Dr. Bruce as a member of the council, the Michigan State Medical Society will gain in the undivided effort he will be able to devote to what has become a statewide demand, namely post-graduate education facilities available to all who look to the future of medicine.



Dr. Henry A. Luce

Dr. Henry A. Luce, of Wayne County, was elected speaker of the House of Delegates. Dr. Luce has always taken a keen interest in medical affairs. He was elected president of the Wayne County Medical Society, where he filled the office to the satisfaction of all during the year 1925-26. Dr. Luce is a graduate of the Detroit College of Medicine. His practice is internal medicine, including neurology. He has clear cut views on all matters that interest him and no one is left in doubt as to how he stands on the medico-economic problems of the present day. He is courageous and will make a good leader of that deliberative body, the House of Delegates. A resolution of the House of Delegates at the last annual meeting gives the speaker a position as member of the Council of the Michigan State Medical Society, with voting privileges.

The second paper was by Dr. F. C. Warnshuis, secretary of the Michigan State Medical Society which was entitled "The Michigan Survey, Its Findings and Application." This paper was the subject of a great deal of favorable comment and great praise was given the work of the Committee immediately responsible for the carrying out of the sur-

final report to the House of delegates in Detroit in July, 1933. The Society financed the cost from its own funds at a cost of $11,264.62. The final report comprised 170,000 words or 700 printed pages. Dr Warnshuis went on to analyze the report in a way which gave his hearers a complete account of the nature and scope of the work accomplished. Since this part of it is well known or at least available to members of this state we shall not enlarge on it here.

Regarding the recommendations of the committee they were for the most part approved by the House of Delegates except that on health insurance, the principle of which was not accepted by that deliberative body but was referred back to the new committee on economics for further study and investigation.

Among the advantages of such a report were a clearer idea of the nature of the medico-economic problems, dependable statistics and established lines of procedure.

In conclusion Dr. Warnshuis spoke of the growing interest the medical profession of the state in economic problems which had been aroused and intensified by the survey of the past two years. It is evidenced that the work of the medical men of Michigan will go on until society at large is relieved from preventable illness and until there is a proper understanding between the profession and the public that will result in greater mutual respect.

Dr. Burton R. Corbus who was invited to speak commented on the Michigan report. He related the fact that the doctor was not particularly group minded, that medical men were peculiarly individualists. It was a problem out to sell them a workable plan which would mean greater efficiency.

Dr. A. T. McCormack of Louisville, Kentucky, discussed the paper stating that he had read the report through from cover to cover and considered it the greatest event in the United States because the medical profession had in it the greatest possibility for developing a higher civilization than any other group in the whole world.

Dr. Lelland in discussing the paper said that insurance had failed in as much as medical services could not be easily sold to people who were not inclined voluntarily to set aside a certain sum for sickness when they are well. There was no objection to the principle of saving for sickness but there was no place of which he knew in which proposed plans had worked successfully. The matter of compulsory saving for illness apparently would not work in the United States.

Dr. Olin West thought that the State Societies of Michigan and Wisconsin should be congratulated for what they had accomplished. He thought the picture presented by the Michigan report could fairly represent the condition of every state in the Union. Fundamental values in medicine should receive the first consideration. Is the medical profession ready to meet the situation that its very foundation might not be overthrown? He believed that the first consideration was the intimate relation of the patient with his physician. The next is whether the organization of the medical profession can promote any plan that will not destroy medicine as a profession. No plan yet proposed, he claimed, could operate without jeopardizing medicine as a profession.

Dr. Dean Lewis maintained with Dr. West that the time honored relationship between patient and physician was all important. Some patients who employ even a poor physician are happy with him. Referring to the subject of fee splitting he claimed that it would disappear when we produced a higher type of student who placed service above the emoluments of the profession.

Dr. Walter L. Bierring, president-elect of the American Medical Association, discussed the social dangers of over-supply of physicians. Among the dangers were fee splitting and lower ethical standards with the final result that the higher type of persons would be disuaded from entering the profession in which case the public must in the end suffer. He did not think that the remedy lay in restricting the number of graduates for ten years as had been proposed, nor increasing the graduate requirements. What was needed in candidates for medicine was higher academic standing, the A.B. degree with character and a mentality that appreciated the classical writings of the profession.

Dr. H. M. Camp read a paper on the work of the educational committee of the Illinois State Medical Society in which he related what was done in the way of public education.

"Medical Defense" was the subject of Dr. J. E. Tuckerman of Cleveland in which he discussed the Ohio plan. Dr. C. W. Comfort of New Haven described the work of the committee on ethics and the department of the Connecticut State Medical Society. These two papers which dealt with allied subjects were discussed thoroughly and at length. The burden of the discussion indicated the nation-wide tendency to bring action for damage against physicians; 90 per cent of the charges were designated nuisance claims, a large number of which were settled out of court. The speaker advocated fighting them rather than settling.

Dr. W. C. Woodward, director of the Bureau of Legal Medicine and Legislation of the American Medical Association, discussed the subject of "Legislative Problems, Federal and State." He dwelt upon the importance of proper procedure in initiating necessary legislation and the importance of reviewing the by-laws of state and county societies by legally trained persons.

A CODE OF FAIR COMPETITION

(New England Journal of Medicine)

In the adoption of plans for the conduct of business designed to improve conditions in this country, the underlying principle involved is "Fair Competition." This means, in theory, that the cost of operation shall fall evenly on competitive industrial organizations with the apparent purpose of giving all forms of business even chances for success. The desired end is apparently to increase and distribute purchasing power among larger numbers of consumers by reason of more employed operators.

Medicine is not required to participate in the regulation of manufacturing and distributing concerns because of the impossibility of adjusting service to hours or emergencies, but doctors have a responsibility in their dealings with certain supply houses respecting fair competition because a practice exists which is designed to concentrate the sale of certain articles among dealers who will pay the prescribing doctor a percentage of the cost of the article sold.

As an illustration a doctor gave a letter to a patient to be delivered to a dealer calling for a certain type of truss. The patient paid the required price and the doctor received the dealer's check for his part in the transaction.

This practice of a commission to doctors for prescribed articles is not unique and is reported to exist in Boston. Several dealers in supplies and apparatus used by physicians will not descend to this practice and feel that those who do are being encouraged by the doctors.

Fee splitting among doctors is an unholy alliance. This commission, paid on doctor's orders, is a close relation to fee splitting and is a barrier to fair competition.

The medical code of ethics should be as binding as the edicts of the NRA.

TELL HIM NOW

"If with pleasure you are viewing any work a man is doing,
If you like him and you trust him tell him now;
Don't withhold your approbation till the parson makes oration
As he lies with snowy lilies o'er his brow.
For no matter how you shout it he won't really care about it,
He won't know how many tear-drops you have shed.
If you think some praise is due him, now's the time to slip it to him,
For he cannot read his tombstone when he's dead!

More than fame and more than money is the comment kind and sunny,
And the hearty, warm approval of a friend;
For it gives to life a savour and it makes us stronger, braver,
And it gives us heart and courage to the end.
If he earns your praise bestow it; if you like him let him know it,
Let the words of true encouragement be said.
Do not wait till life is over and he's underneath the clover,
For he cannot read his tombstone when he's dead."

Berton Braley.

FINIS

Fear no more the heat o' the sun
Nor the furious winter's rages;
Thou thy worldly task hast done,
Home art gone and ta'en thy wages:
Golden lads and girls all must,
As chimney-sweepers, come to dust.

Fear no more the frown o' the great,
Thou art past the tyrant's stroke;
Care no more to clothe and eat;
To thee the reed is as the oak:
The sceptre, learning, physic, must
All follow this, and come to dust.

Fear no more the lightning-flash
Nor the all-dreaded thunder-tone;
Fear not slander, censure rash;
Thou has finish'd and moan:
All lovers young, all lovers must
Consign to thee, and come to dust.

—Shakespeare.

ACNE ROSACEA: RESPONSE TO LOCAL TREATMENT FOR DEMODEX FOLLICULORUM

Samuel Ayres, Jr., and Nelson Paul Anderson, Los Angeles, state that in seventy-seven cases of acne rosacea and pityriasis folliculorum (Demodex), Demodex folliculorum was found in superficial pustules and follicular scales in from moderate to large numbers. In sixty-nine of these patients whose results could be followed, striking clinical improvement or cure was obtained in all but three cases by the use of a strong antiparasitic ointment. Out of sixty-three cases of typical acne rosacea seen during the past two years, in which examination for Demodex folliculorum was made, the organism was found in fifty. With the exception of three patient who did not return for observation, excellent results were obtained in all but two of these cases by the use of a strong antiparasitic ointment without any other treatment. Irrespective of any argument concerning the causal relationship of Demodex folliculorum to acne rosacea, the fact remains that local antiparasitic treatment has given clinical results far surpassing anything in the authors' experience with this disease.—*Journal A. M. A.*

OBITUARY

DR. GEORGE W. GREEN

Dr. George W. Green of Dowagiac died on August 21, 1933, of gastric hemorrhage. He came to Dowagiac in 1896 as principal of the Dowagiac High School. Later he entered the University of Michigan Medical School, where he gave a good account of himself as a student. After graduating he began the practice of medicine in Dowagiac, where he devoted his time chiefly to surgery. Dr. Green had much to do with the establishment of the first hospital at Dowagiac, as well as the Lee Memorial Hospital in 1918. He was chief surgeon to the time of his death. He was married in 1898 to Miss Lena R. Judd. He is survived by Mrs. Green and two sons, Dr. G. F. Green of South Bend, Indiana, Mark Green, a student in medicine, and one brother, Dr. Burt F. Green of Hillsdale. Dr. Green was a member of Cass-Berrien Medical Society, The Michigan State Society and American Medical Association.

DR. ARTHUR LEFEBVRE

Dr. Arthur Lefebvre of Detroit, a widely known physician among French families, died September 25, 1933. He was a native of Montreal, where he obtained his bachelor of arts degree from Assumption College and his medical degree from Laval University. After settling about forty years ago in Ecorse where he practiced for a short time, he moved to Detroit and opened an office at Lafayette Blvd. and Nineteenth Sts., in the vicinity of which most of Detroit's old French families lived at the time. Twenty years ago he moved to his W. Grand Blvd. address. He is survived by his widow Cora; three sons, the Rev. Father Reginald P. Lefebvre, S. J., of St. Louis University, and Armand A. Lefebvre, Detroit attorney; a daughter, Pauline and a sister, Mrs. Charles Desautels of Montreal.

DR. SAMUEL KAHN

Dr. Samuel Kahn of Detroit died September 26, 1933, at his home, 1540 Atkinson Ave., after a two weeks' illness. Born in Latvia sixty-four years ago, Dr. Kahn came to the United States when twenty-one years old. After obtaining his medical degree from the University of Maryland in 1895 he practised in Baltimore until 1910, then came to Detroit. He was a member of the American Medical Association and the Wayne County Medical Society and East Side Medical Society and a charter member of the Maimonides Society and the medical staff and executive of the Evangelical Deaconess Hospital. His widow Mildred; two children, Helene H., and Berthold B. Kahn; four brothers, Benjamin, Charles, John and Dr. Max Kahn of Baltimore, and four sisters, Mrs. Annie Sheer, Mrs. Pauline Fernheimer, Mrs. Fannie Shavlov and Mrs. Lena Kahn, survive.

Michigan State Medical Society

Proceedings---113th Annual Meeting

Grand Rapids, September 11 to 14, 1933

GENERAL MEETING

Wednesday Evening, September 13, 1933

The General Meeting of the one hundred thirteenth annual meeting of the Michigan State Medical Society, held in the Civic Auditorium, Grand Rapids, Michigan, was called to order at eight o'clock by Dr. J. Milton Robb, President of the Society.

President Robb: The meeting will please come to order.

I will ask Reverend J. W. Fifield, Jr., to give the invocation.

Reverend Fifield: Shall we all pray together. Our Father, when we bow our heads in prayer to invoke Thy blessing upon one of the interests of our hearts, we do no strange thing. Throughout all the course of recorded history thoughtful people have put their trust in God, and in the significant circumstances of their lives have invoked the blessings of the Infinite upon their lives and the organizations which signify interest for them.

We thank Thee for the organization under whose auspices we convene tonight, for the rich traditions of its past and the alluring promises of its future, the significant outreach and influential helpfulness of its present.

We thank Thee for the inspiring ideal of the Great Physician, the Master of Men, and we pray that increasingly as laymen and physicians we may give diligent adherence to the ideal which He established in the years that have gone. Not only would we exemplify His spirit, but we pray in His name. Amen.

President Robb: Ladies and Gentlemen: It is now my great privilege to introduce to you Dr. H. J. Pyle. Dr. Pyle is one of our own citizens and one of our own physicians. He is president of the Kent County Medical Society, Chief of Staff of the Blodgett Hospital, and has been Speaker of the House of Delegates. Of that part I know more than I do the rest of his duties, and will say that if he has performed the other duties as well as he has the duty of Speaker of the House, he has served you well.

It gives me great pleasure to introduce Dr. H. J. Pyle. (Applause).

Dr. Henry J. Pyle: Mr. President, Honored Guests, Members of the Michigan State Medical Society, Ladies and Gentlemen:

It affords me great pleasure to welcome you to Grand Rapids for our 113th annual convention. I can assure you that the local medical men, who were asked to serve on committees to make this convention a success, accepted their tasks eagerly as if the mighty of the earth were to be our guests. The Kent County Medical Society has been looking forward to your coming with happy anticipation.

There are speakers on this platform of national repute, who have a real message for you, so I shall be brief, but my pride in our city and our medical organization is such that I cannot refrain from mentioning some of the factors that have helped to make Grand Rapids "a good place to live in." This beautiful, spacious building exemplifies the courage and enterprise of our people. If you can find time during your visit here to look about, you will notice that Grand Rapids is not a city of mushroom growth; but rather it has enjoyed a well balanced development with an emphasis on the cultural and esthetic things of life. Even though this is autumn time you still may see the glory and beauty of trees and shrubs which surround our well kept homes.

This is a healthy city. Nowhere in the world has medical science done more to prevent the physical ills which attack mankind. At a recent visit to A Century of Progress Exposition I was justly proud when I read a poster in the exhibit of the Federal Department of Health, which proclaimed to the passing multitudes that Grand Rapids, Michigan stood first among cities of a population of 100,000 to 250,000 in the number of individuals immunized against diphtheria. Typhoid fever and diphtheria are almost unknown here. This fact must be credited to an altruistic medical profession which constantly supports our civic health authorities. Even the sufferers from tuberculosis can be happy here for nowhere are the victims of this malady better housed and cared for. We have three class A hospitals, well manned and well equipped, from which, through the years, have graduated a throng of internes and nurses, many of whom have attained prominence throughout the nation. We have two colleges and we have been told repeatedly by university authorities that these institutions are outstanding in the calibre of individuals whom they send to higher institutions of learning.

In the field of commerce Grand Rapids has become famous for its production of fine furniture. You may go to the homes of the nation's elite, through the halls of government, to cathederals, churches and synagogues, or stand before the thrones of royalty, and everywhere you will be confronted with the artistic beauty of Grand Rapids furniture.

To those in the audience outside of the medical profession I wish to say that Organized Medicine means much to the public. In this county the Doctors of Medicine are well organized, and I assure you that at our semi-monthly meetings dollars and cents, as far as fees are concerned, are never mentioned. We meet so that we may obtain the benefit of each other's experiences. During the past year a large number of local medical men have addressed us at our meeting and if you, citizens of Grand Rapids, could only know the unselfish zeal which these men display in trying to bring out something new in the interest of public health welfare, you would be proud of Kent County's Medical Profession. Organized Medicine has no secrets. If you as lay people desire to know of medical secrets listen to the radio or read the roadside sign boards, which in many places in our commonwealth have not only hidden the beauty of our landscapes, but in many cases have given you bad advice.

Our profession includes men of national reputation. Every specialty is represented here and, thank heaven, we still have a number of so called family doctors, who serve as a trustworthy rudder in steering those of ultra scientific bent from the broad path of the vagaries of medicine to the narrow path of practical treatment.

In closing, I wish to express the hope that this convention will do a great deal toward the advancement of medical science. If it helps one sick child, one woman in travail, or makes the last days of one individual suffering from the infirmaties of old age a little more pleasant, we shall feel well repaid for having invited you. I thank you.

President Robb: Ladies and Gentlemen: After that speech, I certainly would be remiss in my duty as President if I didn't express the appreciation of the entire State Society for the privilege of being in such a healthy city. (Laughter). I am beginning

to wonder, after he so stresses the situation, whether he might be wishing to keep some of the doctors away from this town. This is a good town, and I think you still have a place for good doctors. (Laughter).

The kindnesses that the Society has received at the hands of this town will not be forgotten readily. Today, the police department was particularly alert when the Woman's Auxiliary of the Society was most active. That, to me, was quite significant. During the other days in which we as men were drifting around this town, we received courteous service but not a service that was pressed upon us. Today, that service was pressed upon us. We all appreciate it, because after some of the things we thought belonged to the Detroit papers this morning in the way of robberies, we felt very much convinced that we were much safer when we saw police looking after us.

The many kindnesses, as I said before, we appreciate, and perhaps some time later, if you will describe as well as Dr. Gorsline did the beauties of Battle Creek, we may again return. (Applause).

Dr. B. R. Corbus: Members of the Michigan State Medical Society, President Cary and other honored guests, Ladies and Gentlemen: The whole country, the whole world during these past few years has seemed to be in a period of flux. In banking, in business, in government, and in the professions we seem to have embarked upon a journey uncharted, definitely getting away from some of the old traditions, for the better perhaps. But it is a difficult time, and a time for leaders to help us to carry on to a real, definite objective which will bring to us a different world perhaps, better times than we have had.

Doctors, in common with the rest of the world, have suffered markedly in this depressed time. I think it must be said that they have carried on their function of caring for sick people. That they have done so at great sacrifice to themselves is true, but they have carried on and have that satisfaction which, after all, is the best of all things.

During this past year when the Michigan State Medical Society has had many more problems to meet than at any other time in its life, we have been fortunate to have as a leader the man who is about to address you. And it has been a great satisfaction to those of us who are interested in the profession and in the State Medical Society that we have been, in this year, so very fortunate.

I desire to introduce to you President Robb, who is now retiring, who will talk to you on "America's One Undepressed Asset." (Applause.)

President Robb read his prepared address, "America's One Undepressed Asset." (Applause). (See October Journal.)

President Robb: Now it is my great privilege to introduce a man who has had many more years of experience, a much wider experience, a much more thorough experience in the problems relative to medicine. This gentleman has been president of the Southern Surgical Society, is a member of the Board of Trustees of the American Medical Association, and an ex-President of the American Medical Association.

It has been my good fortune to have seen him in operation last year at Chicago, Indianapolis, and other places over the country, and he has also made that a working year. It is certainly necessary that at this time those people who can in some way help the profession, and in helping the profession help the entire nation to solve its problems, should be supported by us.

He has come from Dallas, Texas, to talk to you. The probability is that the problems there are the problems here, and I know he will be able to interest you in things that are part of our present problem.

I wish to introduce Dr. Cary. (Applause.)

Dr. E. H. Cary read his prepared address, "American Medicine in Relation to the National Recovery Act." (Applause.)

President Robb: It has been my good fortune twice before to hear Dr. Cary talk, but I have never found him quite so serious as he is tonight. I don't know what the influence has been that has made it.

As I listened to him, and to Dr. Willis Campbell of Memphis, Tennessee, who is with us today (they are both on the program), one is encouraged by what intercommunication by rapid transit means. That is, we are apparently able to understand them and each other. That takes a little time, too. (Laughter.)

I am about to retire from the Presidency of the State Society, and there is one good thing about it, you have one year at it and you can't be put back again on the job. So you really get a little relief, you know, from the task. I feel somewhat like the negro who took a ride in an airplane, and when he got through he said to the pilot, "Thank you, Mr. Pilot, for those two rides, my first and my last." (Laughter.)

The most pleasant part of my duties is about to come, the relinquishing of some of the arduous tasks. If, as has been quoted, service is the price one pays for honor, how fitting it is that this badge of office, the highest honor of the State Society, should go to Dr. George Le Fevre. I deem it an unusual privilege to have this opportunity. (Applause.) Few men, Dr. Le Fevre, are better qualified and fewer are more deserving than you for this post.

For seventeen years Dr. Le Fevre has been a member of the State Board of Registration in medicine, and that is a long service. As a member of the Council of the Michigan State Medical Society he has contributed much in guiding its destiny. This experience, I feel, peculiarly fits him to do himself further honor and do honor to the profession. May I assure you, sir, of my personal good wishes. (Applause.)

Dr. George Le Fevre: Mr. President, fellow members of the State Society, and guests:

It has been your pleasure to grant me the privilege of serving you for the next year as your president and I am deeply grateful for this honor.

The Michigan State Medical Society has done much during its 112 years of existence for which it has the right to be proud. Many problems have been met and solved during those years. Today we are faced with many serious situations of an economic nature which promise to provide plenty of work before their solutions are reached.

The Committee on the Survey of Medical Services and Health Agencies has rendered its report, a most excellent work. It is now up to the Society to make the necessary changes which are suggested by this survey. These changes must be planned with perfectness of design and carried out with painstaking exactness or the entire work of the committee will be lost.

The next year of my life is now dedicated to the administration of the affairs of your Society along these lines, keeping ever in mind the welfare of the practitioner, the good of the Society, and the needs of the patients.

I ask for your help, endurance, and guidance so that our next year may be as successful as the last has been under my worthy predecessor, Dr. Robb.

Past President Robb: Ladies and gentlemen, we appreciate your attention, and we are ready to adjourn.

The meeting adjourned at nine-ten o'clock.

HOUSE OF DELEGATES
First Session

Monday Afternoon, September 11, 1933

The one hundred thirteenth annual meeting of the House of Delegates of the Michigan State Medical Society was called to order in the Ballroom of the Pantlind Hotel, Grand Rapids, Michigan, at 2 o'clock on Monday afternoon, September 11, 1933, with the Speaker, Dr. Henry J. Pyle, presiding.

The Speaker: The assembly will come to order, please.

Dr. Carney, are you ready to report? We will receive the report of Dr. Carney, Chairman of the Credentials Committee.

Dr. T. J. Carney (Gratiot-Isabella-Clare): There are sixty-one delegates registered up to this moment.

The Speaker: Will you give us the roll call, Mr. Secretary?

The Secretary: I hold in my hand the signed roll call of fifty-seven of the sixty-one accredited delegates. I would recommend or suggest that some delegate make a motion that the signed roll call constitute the House for this afternoon's session.

Dr. J. L. Chester (Wayne): I move that the signed roll call be accepted as the roll call for the House of this session.

Dr. C. S. Gorsline (Calhoun): I second the motion.

The Speaker: You have heard the motion that the signed roll call constitute the roll call of the House. All in favor say "aye"; contrary, "no." The motion is carried.

The roll call was as follows:

Alpena County—E. L. Foley.
Barry County—M. R. Kinde.
Bay-Arenac-Iosco—L. F. Foster.
Berrien—W. C. Ellet.
Branch—
Calhoun—C. S. Gorsline.
Cass—
Chippewa-Mackinac—
Clinton—W. C. McCutcheon.
Dickinson-Iron—
Eaton—A. G. Sheets.
Genesee—Frank Reeder; C. F. Moll.
Gratiot-Isabella-Clare—T. J. Carney.
Ingham—L. G. Christian.
Ionia-Montcalm—W. W. Norris.
Kalamazoo—F. T. Andrews, L. V. Rogers, N. L. Goodrich.
Kent—A. V. Wenger, G. H. Southwick, J. D. Brook, Carl F. Snapp, Leon E. Sevey.
Livingston—R. S. Anderson.
Luce—H. E. Perry.
Manistee—Stephen Fairbanks.
Mason—L. W. Switzer.
Monroe—P. D. Amadon.
Muskegon—F. W. Garber, Sr.
Oakland—C. T. Ekelund, R. H. Baker.
Oceana—
Otsego-Montmorency, Crawford-Oscoda—
Roscommon-Ogemaw—Claude R. Keyport.
Ontonagon—
Ottawa—
Saginaw—G. Harry Ferguson, A. E. Stickley.
St. Clair—A. L. Callery.
Wayne—H. W. Yates, W. D. Barrett, H. A. Luce, A. W. Blain, E. C. Baumgarten, Wm. J. Stapleton, Jr., G. C. Penberthy, B. L. Connelly, E. D. Spalding, J. L. Chester, L. J. Gariepy, W. R. Clinton, Wm. S. Reveno, C. F. Brunk, A. E. Catherwood, L. T. Henderson, C. K. Hasley, B. U. Estabrook, S. W. Insley, L. O. Geib, D. P. Foster, F. C. Witter, C. S. Ratigan, V. L. Van Duzen, W. Joe Smith.

The Speaker: The Chair will ask Vice Speaker Dutchess to take the chair.

Vice Speaker Dutchess took the chair.

The Speaker read his address.

SPEAKER'S ADDRESS

Gentlemen: It is with considerable reticence that I rise to answer to that particular item on our program designated as the Speaker's Address. Many of you in this assembly know that this is the fifth time I am honored by being your presiding officer.

The lives of all of us have become more complex during the past five years and as a result your responsibilities and mine, as a House of Delegates, have become greater. In our deliberations we must keep firmly in mind that we are to guide the activities of the Doctors of Medicine of this great Commonwealth. Through the years I have become impressed by the unselfish zeal which you have displayed in your discussions. You have ever given the interest of the public health welfare first place, and this is as it should be. Surely it is an honor to preside over an Assembly of this kind.

Medical science has made great progress, but it is only through organized medicine that the public can derive the greatest benefit from this advancement. I wish the public could know what the term organized medicine really means. I presume there are still lay individuals who believe that a medical convention involves the discussion of dollars and cents—or in other words a fee-fixing combine. They do not realize that in medical meetings doctors vie with each other to bring out something new to relieve human ills. I have been attending medical meetings, county, state and national, for the last twenty-six years and never have I heard the question of monetary remuneration discussed.

We have no secret remedies. We know of no magic laying on of hands. In the scientific sections of the Convention nearly every disease process will be discussed—everything from hammer toe to brain abscess—and the doctors will go to their respective homes better equipped to care for their patients. This is the highest type of altruism. I trust that some day Michigan's citizens will show active resistance against some of our legislators who constantly attempt to place obstacles in the path of organized medicine. I wish that these facts were known to every layman in the State and this can be accomplished by giving our actions, as an organization, the fullest publicity through the newspapers. I believe that any newspaper reporter assigned to cover our meetings is eager to impart to the public an accurate account of our doings. I trust that at this session a Press Committee may be appointed to assist these reporters in placing the correct interpretation on our discussions.

Personally, I wish that the medical profession could see its way clear to abolish the title "Doctor," because our legislators have made it legal for many groups to use this title. Years ago I told you that many laymen do not know whether the person using the title is dealing in souls, salves or sophistry.

Due to the quiet social revolution which our country is undergoing at the present time the medical man may find difficulty in adjusting himself to the new conditions. Recent exhaustive studies have clearly proved that we have received very little in the way of monetary reward for the amount of work which we do and the many years of preparation that are required to properly fit a man for the practice of medicine. Now as never before we are called upon to take the greater part of our remuneration for the day's work from the satisfaction of a task well done. I believe that the gates to affluence, as far as material wealth is concerned, are forever closed to the average medical man of this country. The young man who enters medical school with the idea of making money will soon learn that he was greatly mistaken. No student should be encouraged by members of our profession to pursue the study of medicine unless he can do so in the spirit of self sacrifice.

I trust that when we have finished our deliberations today we may be able to look back with pride on what we have accomplished. In all probability some of the matters to come before this assembly will involve controversial subjects, and it is imperative that we all display a spirit of tolerance and fairmindedness. It will expedite matters if, in your discussions, you limit yourselves to the subject in hand.

The Vice Speaker: The Speaker's address will be referred to the Committee on Reports of Officers and Council.

The Speaker resumed the chair.

The Speaker: Next, we will listen to President Robb's address.

Dr. Robb read his prepared address.

PRESIDENT'S ADDRESS

Members of the House of Delegates of the Michigan State Medical Society:

I appear before you to report my stewardship of the high office which it has been my honor to hold during the past year. For the past three years, I have attempted in a small way to aid in the solution of some of the problems of the profession. During this period I have been impressed with the observation that we have been living in a world of creditors, a world of debtors, and a world of statisticians, all staring at each other in utter dismay; but the unfortunate thing about solutions based on statistics that have been put forward is that, while they may tell us what fools we have been, they seem to be absolutely unable to prevent us from being fools again.

Encouragement for all of us is to be found in the manner in which the profession has acquitted itself during these parlous times. Organized medicine has not shirked its duty. Physical distress and mental bankruptcy, rampant everywhere, have not discouraged us in the least. We have kept faith with those whom we serve and, if I may be permitted a boast, have made an enviable record for self-sacrificing service and devotion to duty. Curiously enough with all of this to our credit, and although we have learned to look

at our responsibilities as far as national health is concerned in a broad, sane and deliberate manner, thus outrunning all other guilds, we find ourselves at the cross-roads. A crisis looms before the profession; one that we must face squarely and whose problems we must attempt to solve, not hy the panacea route, but by the method of cutting and trying. We may not be a large unit in the national social scheme, but we are an important one because all other units make contact with us at varying points.

Finding ourselves at the cross-roads, what course shall we follow? Shall it be the pleasant indolent boulevard of "laissez faire"—of least resistance? Or the difficult, tortuous path which means *fight* all the way? The choice should not he hard to make. The road we take must he the hard and courageous one, and it must be filled with willing crusaders whose slogan is "Work"! If this State Society of ours is to travel this irksome road, the first thing that it must have is a more definitely established policy, carefully outlined and just as carefully conducted, not only by the officers of the Society, but also by each and every member. This policy should consist of four main divisions, all interrelated: First, a public relations program; second, a legislative program; third, a continuation of the medical economics program; and fourth, an enlargement of the postgraduate program.

The foundation stone of this four-fold program is the strengthening of the public's confidence in the medical profession. We, ourselves, may have been somewhat guilty of dissipating this confidence by our own actions. We must regain that confidence now. In order to do so, we must first have more faith in ourselves and in our chosen leaders.

There is a profound need for a public relations planning. No group is so misunderstood (or not understood at all) as is the medical profession. Our work and its immensity is not known and therefore not fully appreciated. We are, and for centuries have been, hiding our light under a bushel. This should be changed at once. There must be another "New Deal," gentlemen, and this time for the medical man. He must he interpreted to this public. Each county medical society must put life into its committee on public information and make it a permanent group. This unit should plan an educational program: work hard on this for the next ten years. In this way, the medical profession will properly express itself and when it has done so the public will respond.

This program demands close organization in every county medical society. Esprit de corps is necessary. An attempt must be made to get *every* ethical physician into the organization. The ranks must be built up to the fighting strength! All eligibles must be drafted at once. This is no time for slackers. If a physician's diploma is worth anything, it is worth fighting for, and no man can fight a successful hattle alone. Every county medical society must be strengthened hy a dignified but vigorous campaign for good members.

We must develop greater tolerance and more consideration for our own professional brethren. Do not forget that when we boost our medical neighbor we are boosting ourselves. When the reverse is done, we damage not only our individual selves, but also our entire profession.

Our public relations program must meet with success! Get in the members and work as *one*. Take up the cudgels in our own defense and in defense of the public, assuring them that our enemies are, in the final analysis, the enemies of the people at large.

A successful public relations program indicates that each and every member of a county medical society is working harmoniously with his fellow-member.

The next matter for our consideration is the legislative program.

As I review the Society's activities over a period of years, I am thoroughly convinced that most of our effort will come to naught unless we determine upon a definite legislative program. It is absolute folly to stand aloof and refuse to take active part in the enactment of laws, which we, as the conservators of the puhlic health, must see enforced. We need not fear the stigma of stooping to politics. I do not believe that we have ever suggested anything in a legislative way that was not for the greatest good of the greatest number. Consecutive thought and action is imperative.

First of all, I feel certain that to be of any value this program must be started in each and every county long before the primaries. The most important duty of the president of each county medical society is the appointment of a responsible active chairman of the legislative committee who fully appreciates that a tremendous chasm exists between theoretical and practical politics. Second, the annual meeting of the State Society should be timed to occur before the primaries so that a thoroughgoing discussion and a complete planning of the legislative program shall be had, with sufficient time allowed to set that program in motion. This will assure us of legislators in office who have a proper concept of medical legislation, who realize that a physician can not be made by legislation, and there can be but one safe door to the practice of the healing arts. These men should appreciate the sacredness and seriousness of medicine so that they will not permit entry into its domain through back doors and cellar windows. Again, we must have legislators who will not permit laws to be passed, making state wards out of responsible citizens. Third, all legislators should be contacted by the physicians in their districts immediately after election and continuously thereafter. There must be no let down. Fourth, proper recommendations regarding appointments to committees of the legislature should be made to the leaders of the House and Senate immediately after election. The statement, so often heard, "Let the State Society do the legislative job" is as nebulous and ineffective as saying, "Let George do it." That off-hand method of hoping things will be handled is a thing of the past. The joh can not be done as well by strangers from a distance. It must be done by *you*. You must establish a rational policy for legislation and stick to it. While I have heen unusually fortunate in having a legislative chairman, Dr. Earl I. Carr and his committee—Dr. G. C. Penberthy, Detroit; Dr. William C. McCutcheon, Cassopolis; Dr. William Hyland, Grand Rapids; and Dr. Carl F. Moll, Flint; all men of experience and extraordinary ability, who could meet emergencies on short notice, I would not wish any succeeding officers of the Society to inherit the grief whicb we have experienced during the past year, through the handicap of unpreparedness.

Now, we come to the matter of medical economics. This huge problem, with its smaller question of health insurance and its best solution, still confounds us. I must admit that I am frankly not in a position to "send a message to Garcia." In the turmoil of the senses, which came as a part of the executive duties of the past three years, life would have been singularly arid were it not for the oases—the spirited discussions on medical economics. I am far from heing convinced that all modern social tendencies are for the ultimate best. Does the "sawdust trail" of health insurance lead to complete redemption from our medical ills? Is not the necessity for social insurance in direct proportion to the loss of moral responsibility on the part of our people? Will health insurance increase our taxation and if it does will the public accept it?

The report as presented by the special committee, composed of Dr. W. H. Marshall of Flint, chairman; Dr. L. G. Christian, Lansing; Dr. B. U. Estabrook, Detroit; Dr. C. S. Gorsline, Battle Creek; Dr. F. A. Baker, Pontiac; Dr. Nathan Sinai, Ann Arbor; Dr. F. C. Warnshuis, Secretary, ex-officio; is the result of two years of prodigious, painstaking, persistent effort, and justly deserves a serious study and unselfish judgment by you.

"The logical solution of the problems of medical economics depends upon the solution of general economics. If the state is to control industry, it will and probably should control medicine." You will note, however, that in the formation of the National Recovery Act the principle, upon which it was based, was not insurance, but the re-establishment of the responsibility and independence of the individual.

In your deliberations, bear this in mind, that whatever scheme or system be presented, it is not an end in itself, but a means to an end. It behooves us, therefore, to continue our local study and carefully analyze the set-up of social structures in other nations, selecting for our guidance that which is good and discarding, wherever possible, that which contributes to the degradation of those nations.

My fourth and concluding subject is one whose value is more readily appreciated. Post-graduate opportunities should be available to and embraced by each and every member of the profession at regular intervals.

It is said that surveys of Medical Literature and Practice show that medical knowledge, during the past three decades, has advanced rapidly and specifically enough to permit division into periods of five years each. A physician of average ability and equipment who has taken no medical course for five years may still catch up. After ten years, only the exceptional man can reach the front ranks. And after fifteen years, he is hopelessly behind.

The establishment of a post-graduate program which will meet the needs of our membership and the adoption of a definitely planned schedule of study hy every member is equally as important as the fulfillment of his under-graduate requirements, to render a high quality of medical service.

With better medicine comes increasing public confidence in the medical profession. The combined interest and effort of the University of Michigan and the Michigan State Medical Society in the furtherance of this program is most commendable and the result of the initiative and direction of our Dr. James D. Bruce, Vice President of the University and a member of the Council of the State Society.

The foregoing observations and suggestions have been presented with one purpose in mind, namely, the attainment of a more effective State Medical Society—the sum total of the county societies. United we do more than stand; we rise. Divided, we do more than fall; we sink into the quagmire of ignominous defeat.

You will remember that when the Great War was at its height, those at headquarters in Paris were becoming increasingly anxious as to the ability of the French forces to hold the key to the line located at Verdun. The Germans had turned hell loose at this point and had given Marshal Petain no rest for weeks. A messenger was sent to the Marshal to find out, if possible, the prospects. The old warrior required few minutes and fewer words in making reply. The messenger carried back just four sylables for the comfort of the Allies. These four syllables were—"They shall not pass."

Members of the House of Delegates: of the forces that would defeat us, we *can* say, we *must* say, "They shall not pass!"

The Speaker: President Robb's address will be

referred to the Committee on Reports of Officers and Council.

Next we will listen to President-elect Le Fevre's address.

Dr. Le Fevre read his prepared address.

ADDRESS OF PRESIDENT-ELECT

Gentlemen: We are today to help shape the destinies of the Michigan State Medical Society and its various committees for another year. In the democratic plan of organization of this society the President and President-elect serve in a consultative capacity, while you delegates as a body hold the legislative powers. The council serves as the executive branch of the organization. Administrative functions and other detail duties are left to the secretary, business manager and editor, or to various designated committees. It is my purpose to suggest to you for your consideration, certain recommendations that have been inspired by my activities, as a member of the council and which concern our society's welfare and objectives.

In that tremendously valuable report of the Survey Committee, comment is made upon the idle time of physicians. It is shown that the private physician has considerable unproductive leisure time and that 43 per cent of all in private practice have a net income of $2,500, or less, per year. It is also shown that many physicians refrain from participating in the practice of preventive medicine. They neglect advising parents to bring in their children for immunization against diphtheria and scarlet fever and vaccination against small pox. They likewise overlook the value of check-ups at regular intervals on the physical condition of a child during its maturing years. According to the areas of study, 54 to 71 per cent of physicians reported less than ten periodic physical examinations a year. The rendering of services of this nature to families makes for a better feeling and would greatly add to the doctor's prestige, thus increasing his practice. His idle time could well be used in this manner, benefiting both himself and the patients. Cards could be sent to the mothers he has confined at stated intervals, recommending both the immunization and the physical check-up. The judicial council of the American Medical Association has ruled that it is ethical for a physician to urge his patients to have regular physical examinations. I would therefore request that you authorize your president to formulate a statement, to be approved as to form by the council, that every member may enclose in his correspondence with patients.

In the past the only concerted effort at preventive medicine in the state has been made by the Wayne County Medical Society and by the State Department of Health. There is no reason why each county society cannot conduct some sort of campaign which will tend to increase the preventive medicine that is practiced in the state. In many of the counties the school physicians are immunizing the children of school age. This only helps to separate the family physician from the family. Such work might better be done by the family physician, at least for his own families, during his idle time. Some plan whereby this can be carried on might well be formulated by our society. It is the rendering of such additional service which will ultimately result in a better understanding between patient and physician.

Since the report of the Committee on the Costs of Medical Care has been made public, there has been much discussion, both by the profession and by the public, of this subject. It is a fact that some of the cost can be limited by some effort on our part. First, by limiting unnecessary hospitalization and special nurses and, second, by prescribing less of the so-called trade preparations, which are usually some more expensive form of a very simple remedy. I ask that you authorize me to appoint a special committee and empower me to instruct this committee to prepare a series of articles for publication and distribution, imparting approved remedies that are equivalent in therapeutic value and less expensive than trade preparations and urging this economy in therapy.

Much of the criticism of the medical profession arises from misunderstanding and misinformation. No doubt there are times when the doctor himself is at fault. The public, or the person that feels aggrieved, has today only one redress, the courts of law. Much of this fanciful or real grievance can be clarified and cleared up without resort to law by arbitration and explanation by a disinterested group. This has been demonstrated in several states, principally New York.

I ask that you create and authorize me to appoint a grievance committee of five members, the function of which will be to arbitrate and settle disputes, to adjust financial differences, to compromise complaints and to decide ethical questions between patients and physicians. This committee should exercise its influence to establish friendly relationships with the public by providing a central group to which inquiries may be sent. Such a committee should greatly reduce the number of malpractice cases and should help in a large way to raise the esteem with which the profession is held by the public.

The survey report also shows that the care of the indigent is a community responsibility. I would urge that every county society follow the course of several of our county societies and make proper approach to responsible authorities for the purpose of agreeing upon a plan for the medical care of indigents. Careful study should be made by each society of the plans already in operation and each society should frame a plan best suited to its individual needs. The initiative must be taken by the society and not by the public or county authorities, because in most cases the latter are well satisfied with the usual plan of allowing the indigent to find some physician who is willing to give the service without pay.

In our attempts at reorganization we must not forget that the University Hospital at Ann Arbor is the backbone of the medical profession of the state. We need this institution for the production of physicians, for post-graduate instruction and as a help for the general practitioner. We all need it and therefore should give it our support.

County society activities fluctuate in direct ratio to the efforts, enthusiasm and activities of its officers and committees. I desire to impress upon county officers that the responsibility of office includes the maintenance of a live, active society. This requires effort and continued activity and a planned program. They must keep informed of the activities of the State Society by reading the JOURNAL. It is only in this way that your society can be a useful part of the organization. The officers must read, answer and comply with the correspondence received from the council, secretary and state committees. The officers must also consult with the councilor of their district. He has much valuable information which will be of assistance in planning your activities and society functions. The local societies should also, through their officers, supervise clinics held under the control of the society. An earnest effort in this direction will soon diminish the number of free clinics sponsored by so-called welfare organizations which cut in to the business of the legitimate practitioner. The officers should also plan worth-while scientific programs for the benefit of the society. Many of the societies have men among their own membership who are willing and capable of conducting such meetings. It is also possible to obtain good speakers, either through the office of the State Secretary or the University. As delegates representing your county members, it is your duty and obligation to go back to your county, inform them of our program and inspire and induce your county society to assume these activities.

CONCLUSIONS

It should be recognized that county societies *exist to be supported* and not solely to support their members. Our pernicious, acquired habit of endeavoring to "thumb," as does the hitch-hiker, all we can, is fundamentally unsound. The basic principle is "to give" in order that you may receive. Let the profession fail and the medical practice also fails. Much depends upon how the medical profession acts to meet its problems. Only a united profession can weather the storm and preserve the principles which it knows to be best for the public and its own members. To that end will I endeavor to function as your president and place my time at your service.

The Speaker: President-elect Le Fevre's address will be referred to the Committee on Reports of Officers and Council.

Next we will receive the report of the Council. Dr. Corbus is the Chairman.

Dr. B. R. Corbus read the report of the Council.

ANNUAL REPORT OF THE COUNCIL

To the House of Delegates—
Gentlemen:

The Council submits this as its annual report to the House of Delegates.

The Council has published its minutes in the JOURNAL and presents these minutes as part of this report.

During the year the Council has been confronted with many trying problems. An organization of this type is peculiarly susceptible to a depressed economic situation, closely dependent as it is upon economic stability of the members who constitute the Society. The Council has diligently endeavored to adjust your Society's affairs to changing conditions, at the same time making every effort to sustain and to continue the Society's activities and to safeguard and promote the welfare of the individual member.

FINANCES

Appended is the financial report made by certified auditors.

The By-laws provide that a member whose dues are in arrears on April first of the current year, be suspended, the JOURNAL discontinued and legal protection terminated. Your Council, recognizing the financial difficulties confronting so many members, has extended the period from April first to October first. It asks that the House of Delegates concur in this action. By action of the Council some two years ago, members were permitted to pay their dues by note. Relatively few have paid these notes. It will, of course, be necessary to immediately cut expenses by dropping these members. The problem presents itself as to whether we would be justified in accepting from members not in arrears before this year, a note to cover this year's dues. The Council would favor such a plan.

Attention is particularly called to the obligation that is placed upon us to maintain an adequate fund for medico-

legal defense. With each note the Society accepts the obligation to carry medical defense for the individual for which he may draw on Society funds over a period of years or until legal proceedings are outlawed. The cost of medical defense is large and is increasing. In fairness to those who are supporting the Society we cannot hold memberships on notes for more than one year.

We are compelled, at this time, either to draw upon our reserves to cover running expenses, or to borrow. It is the opinion of the finance committee that it is preferable to borrow rather than to sell our securities, at least for the time being. By the utmost economy your Council and officers have been able very materially to reduce expenses, the last budget providing for a very drastic cut. These drastic economies, together with excellent business management, have made it possible for the Council to finance the extra expense incurred by the Committe on Survey. The total expense for this committee work was $11,286. It is this expense which has incurred the operating loss of 1932, and will create a loss at the end of this year. However, the Council feels, and the House of Delegates we know will feel, that the money was well spent and that value has been received. We hear the comment from those interested in this type of work, that the report was remarkable not only as a valuable contribution, but remarkable in that such a contribution could be produced at such a low expenditure.

The House is advised that no new activities requiring an expenditure of funds can be undertaken until a normal income has been re-established. We are at the point now where we must conserve all that we have in order to safely maintain a secur position.

THE JOURNAL

The Council again directs the attention to the advertising pages of the JOURNAL. Without this income it would be impossible for us to continue its publication. Within the past two years there has been a great reduction in advertising income. The Council feels that this is due only in part to the depression from which all business is suffering. Perhaps as important a cause is that members fail to patronize advertisers. Advertisers frequently advise the manager that they have had no inquiries and no returns from advertisements which have been run for a considerable period of time. The test of advertising is the patronage of the people whom it reaches. We cannot have an adequate advertising income unless members look upon it as a duty to give JOURNAL advertisers preference. Ask every detail man who calls upon you whether his firm advertises in the JOURNAL. Let the advertising pages of your JOURNAL be the admittance card of the salesman. Write in for samples and at least show the advertiser that you are interested. This coöperation is a very vital matter. If you do not help the JOURNAL to succeed from a financial standpoint, you cannot expect to have it maintain its literary and scientific quality. It has been necessary for us to cut the number of pages. We believe that the quality of the JOURNAL has been maintained. There are many excellent articles awaiting publication and the size of the JOURNAL will be increased in direct relation to the improvement in the advertising end.

LEGISLATION

A legislature largely made up of inexperienced men from a party which has not been in power in many years, made the task of the Legislative Committee doubly hard this year. The same old problems presented themselves. It is regrettable that the proposed new Medical Practice Act, developed after months of hard work by the committee of legislators appointed by the last Governor, failed to get more than temporarily out of the committee. Without being 100 per cent satisfactory, this bill, which did not emanate from the profession, offered distinct advantages over the Medical Practice Act. It did seem as though, if passed, this bill would do away with the constant, though necessary battle between scientific medicine and the non-regulars. It was only by the veto of the Governor, as you know, sustained by a relatively close vote of the House, that the Osteopathic Bill was defeated. It would again seem, from this year's experience, that the medical profession, either as an organization or as individual members, is pretty impotent so far as contacts, education or argument is concerned, in the effort to influence the average legislator to vote for sane and safe health bills. Certainly the citizen is entitled to have the state provide that any individual who attempts to treat the ills of another should have a degree of training sufficient to permit him to intelligently recognize and treat that individual's ailments. The state has a definite obligation to protect its citizens from incompetency and charlatanism. If that obligation is accepted it is likely to come about more quickly and more readily if the arguments in its favor come from lay groups interested in the health and well-being of the people of the state.

Every legislative year presents the same old problems. Possibly your Reference Committee, analyzing the report of the Legislative Committee, may be able to make some suggestions for future activity. It is the feeling of the Council, with a full appreciation of the intense conscientious work of the Legislative Committee, that the favorable results this year, as in the preceding years, have not been in proportion to the amount of worry, labor and effort expended. At that we probably will be compelled to meet the situation two years from now in much the same way unless this House initiates new legislative activities. By reason of recent legislative experience it would seem that a continuous educational campaign demands consideration.

POST-GRADUATE WORK

The Council directs attention to the facts uncovered by the Survey Committee. Attention is also called to the comments of the American Medical Association Bureau of Economics.

Mindful of the constant need of our members for opportunities to pursue sustained post-graduate work your Council has sought in conjunction with the Department of Post Graduate Medicine of the University to provide courses of study, clinics and conferences. Too few, however, embrace these opportunities. If our present system of medical practice fails it will be because of the failure of the individual physician.

The Council is conscious of the apprehension that prevails in the medical profession. The Council recognizes certain social movements, some favorable to and others definitely at variance with our ideals of medical service. We perceive the avidity with which certain groups are seeking to invade medical practice. We feel that the medical profession and informed public opinion are able to meet and defeat these untoward movements and eliminate the profit-seeking third party, provided that every physician is prepared to render adequate medical care. To be so prepared it is necessary that we pursue definitely planned post-graduate schedules. This is of no less importance than the fulfillment of our under-graduate requirements.

NEW COUNCILOR DISTRICT

For some time the need has been felt for the creation of a new Councilor District in the upper peninsula. It is asking too much to demand that one Councilor supervise that large area of the state The Council recommends the formation of a new 17th Councilor District in the eastern half of the Upper Peninsula.

ANNUAL MEETING

The facilities required for the holding of an annual meeting are important and exacting if a successful meeting is to be held. Commercial firms will not exhibit where the exhibit space is distant from the meeting places. There are but few localities that afford auditoriums that will permit having sessions and exhibits in one building.

A second consideration is expense. In recent years we have paid as high as $900 for rental of buildings and in addition have been compelled to pay from $75 to $150 for electric wiring for exhibits and section lanterns. The cost for erection of booths has varied from $200 to $300. The total expense of some annual meetings has exceeded $2,000. We feel this to be prohibitive. The Council recommends that the House of Delegates give consideration to limiting the place for annual sessions to those localities where physical accommodations in a central building are available and meet requirements for successful meetings without exhorbitant expense to the Society. The House of Delegates should determine upon some definite policy in regard to meeting places.

COMMITTEE ON ECONOMICS

The report of the Committee on Economics will impart to you a timely program of activity. The expense occasioned by that program is a serious problem. Furtherance of the economics committees program is dependent upon the Council's ability to secure outside funds. The Council should be authorized to solicit and accept financial assistance from outside sources, providing the economics Committee's study is to be continued.

CONCLUSIONS

Whether the profession of Michigan will assume leadership and solve its own problems or whether you will permit conditions to develop that will cause others, outside the profession, to solve them for you rests solely with you who represent your fellow members. Your honor, dignity and independence are involved. There are before you examples of movements with many ramifications that threaten the profssion's future. Will you fail to recognize them until the entering wedge has been driven in so deeply that its removal will be difficult and may cost heavily?

Medicine has not failed as have other institutions and industries. Government has not been compelled to intervene as it has in many of our commercial, industrial and civic functions. Medicine has upheld its traditions. It is in a strategic position. A controlled offensive will retain the advantage now held and hold the strongholds you now revere. Medicine in its scientific and economic practices must keep pace with the body politic to retain its independence. Only by a united profession devoted to a common cause can we continue to progress.

Respectfully submitted,

B. R. CORBUS, *Chairman.*

The Speaker: The Council report will be referred to the Committee on Reports of Officers and Council.

The Secretary: Mr. Speaker, the Council, supplementing its formal report, directed that there be transmitted to this House of Delegates the follow-

ing invitations for the next year's annual session: From the Saginaw Convention Bureau; from the Grand Hotel at Mackinac Island, supported by Dr. Brogan of Mackinac Island; from the Calhoun County Medical Society; from the Chippewa County Medical Society at Sault Ste. Marie; and from the Grand Traverse County Medical Society at Traverse City. The Council transmits these invitations to the House of Delegates without recommendation.

REFERENCE COMMITTEES

The Speaker: At this point the Chair wishes to appoint the following committees:

Committee on Reports of Officers and Council

A. E. Catherwood, Wayne
Claude R. Keyport, Oceana, Otsego-Montmoreney, Crawford-Oseoda-Roscommon-Ogemaw
George Curry, Genesee
L. F. Foster, Bay-Arenac-Iosco
James O'Meara, Jackson

Committee on Society Affairs

F. T. Andrews, Kalamazoo
E. C. Baumgarten, Wayne
G. H. Yeo, Meeosta
G. H. Fraee, Cass, Chippewa-Maekinae, Clinton
M. R. Kinde, Barry

Committee on Miscellaneous Business

W. C. Ellet, Berrien
H. M. Best, Lapeer
B. L. Connelly, Wayne
G. Harry Ferguson, Ontonagon
Wm. T. King, Houghton

Committee on Standing Committees

G. C. Penberthy, Wayne
I. W. Greene, Shiawassee
R. H. Baker, Oakland
V. Vandeventer, Marquette-Alger
E. B. Minor, Gogebie, Grand Traverse-Leelanau.

I trust these chairmen won't do all the work. Usually the chairman does all the work. The other committeemen should help. I trust we shall have concise reports. Some of the things these officers have brought up might be practical, and some might be considered fantastic, but I hope they will give them deep study, and we will get good reports from these committees.

Dr. E. D. Spalding (Wayne): Before you pass on to the next order of business, I have a motion in reference to these committees which I would like to make at this point: That a committee of three members of the Michigan State Medical Society, consisting of Drs. James B. Bradley of Eaton Rapids, Henry Cook of Flint, and H. A. Luce of Detroit, be appointed to report to the House of Delegates at this meeting on the premature release to the press of the presumed action of the House of Delegates on the report of the Committee on Survey of Health Activities, for the consideration of which the House of Delegates convened in special session at Lansing on July 12, 1933.

The Speaker: Mr. Secretary, I believe it would be well for you to read this again.

The Secretary read the motion presented by Dr. Spalding.

The Speaker: Do I hear a second to that motion?

The motion was regularly seconded.

The Speaker: Gentlemen, you have heard the motion. Is there any discussion? If not, all in favor of the motion say "aye"; contrary, "no." The motion is carried.

The next item is the report of the Committee on Economics, Dr. W. H. Marshall, Chairman.

Dr. Marshall: This is an important subject, one of the most important with which this House of Delegates has to deal. I realize it is impossible for the average delegate to follow everything in an address such as I have given. Therefore, we have prepared mimeographed copies of this report, and I would suggest, Mr. Speaker, that instead of immediately proceeding with the discussion of this report the members be given a few hours to look it over and see the implication of these recommendations, and that we meet this evening at seven-thirty, or thereabouts, and spend the evening in the discussion of this report.

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

At a special meeting on July 12, 1933, the House of Delegates received the report of the Committee on Survey of Medical Services and Health Agencies. Acting upon this report the delegates adopted the following recommendations:

I. *Committee on Medical Economics*
   A. That the House of Delegates appoint a standing standing Committee on Medical Economics to collect, analyze, and distribute information and to advise medical and other groups or individuals concerning medical economic problems in Michigan.
   B. That the Committee on Medical Economics be given broad powers to appoint sub-committees and to seek information and coöperation whenever such action, in its judgment, is necessary to public welfare.
   C. That each component medical society appoint a Committee on Medical Economics, supplanting the present Committee on Public Relations, to study local problems and to coöperate with the state committee.
   D. That the Committee on Medical Economics present a report of its activities to the House of Delegates on September 11, 1933.

II. *Health Insurance*
   A. That the Committee on Medical Economics be directed to study, prepare and present, for the consideration of the House of Delegates, a plan or plans for health insurance: provided, however, that such a plan or plans shall be based upon the following policies:
      1. Free choice of physician by the insured.
      2. Limitation of benefits to those of medical service.
      3. The control of medical service benefits by the profession.
      4. The exclusion of individuals or organizations that might engage in health insurance for profit.

III. *Medical Care of Indigents*
   A. That the community and the medical profession undertake the medical care of indigents as a joint responsibility.
   B. That the costs of medical care for indigents be met through a contribution of funds by the community and a partial contribution of services by the medical profession.
   C. That the community funds be used to compensate, in part, the physicians for services rendered to indigents and that such compensation be *in proportion to the amount of service rendered.*
   D. That the community centralize in one agency the social and economic appraisal of the individual's or family's right to such medical service.
   E. That local Committees on Medical Economics institute studies and develop plans in accordance with the above recommendations.
   F. That the State Committee on Medical Economics collect and analyze data pertaining to the costs of medical care for indigents and to plans for providing service, and that these data be made available to local committees.

IV. *Subvention of Medical Service*
   A. That the House of Delegates approve the principle of subvention, through state or local funds, to assure reasonably adequate medical care for residents in the sparsely settled areas and reasonably adequate incomes and facilities for medical personnel.
   B. That the Committee on Medical Economics institute local detailed studies to determine the need for medical personnel and facilities in such areas.

V. *Public Health*
   A. That the county be established as the basic unit of public health administration, including school health administration, and that the jurisdiction and activities of the county health department extend to all cities in the county.
      This recommendation is intended to place the health department in a position to correlate all health activities of a public nature in the county.
   B. That the present plan, permitting two or more counties to form district health departments, with the aprpoval of the State Health Commissioner, be continued.
   C. That the Committee on Medical Economics and

the State Department of Health institute a study of counties to determine whether local needs would best be met by single county health departments or by consolidations of two or more counties for the support of a district health unit.

D. That counties be assisted in the financing of health departments by state funds.

VI. *The University Hospital*

A. That the University adopt a policy which will lead to a restriction of the activities of the hospital to those efforts directed toward medical education.

B. That the Committee on Medical Economics of the Michigan State Medical Society request the appointment of a committee by the University and act with such a committee to prepare a plan to effect this policy as early as is compatible with public welfare.

VII. *Financing The Program*

A. That the Council of the State Medical Society devise ways and means to finance the program in Medical Economics for the coming year.

Immediately following the special meeting, the Speaker of the House of Delegates appointed the Committee on Medical Economics, as follows: W. H. Marshall, Chairman, Fred Baker, L. G. Christian, Bert U. Estahrook, and C. S. Gorsline. The Committee at its first meeting on July 23 invited Nathan Sinai to serve as Director of Studies. In accordance with the first recommendation of the House of Delegates the Committee herewith presents its preliminary report in the form of a future program for the consideration of the delegates.

The Committee visualizes the efforts of medicine as a continuous warfare against illness and premature death. To insure even a modicum of success, the advance must be made toward three objectives:

1. There must be a wider and more even distribution of medical service.
2. There must be a better organization of payment for medical service.
3. There must be a coördinated effort to insure medical service of a uniformly high quality.

Even a superficial analysis of these three aims must lead to the conclusion that they are indivisibly integrated and that it would be impossible to completely achieve one without attaining the others. With these objectives clearly and prominently in the forefront, the Committee has considered each of the recommendations. Its purpose was to select those having the greatest relative value for immediate action. With this as a basis of choice, it is the judgment of the Committee that intensive efforts during the coming year should be directed toward the following:

1. A study of post-graduate medical needs and the presentation of a plan or plans to meet professional and public requirements.
2. A study of the care of indigents, and the presentation of a plan or plans applicable to local areas in the state.
3. A study of health insurance and the presentation of a plan or plans in accordance with the policies adopted by the House of Delegates.

In this report the Committee wishes to emphasize what it regards as immediate needs. It must not be concluded from the foregoing that action upon the recommendations relating to the University Hospital and to Public Health organization will be postponed. These two questions will receive consideration through the appointment, at an early date, of special subcommittees in accordance with the action of the House of Delegates.

The successful conclusion of the whole program depends upon the complete understanding and wholehearted support of the House of Delegates. Therefore, it is appropriate that at this time the delegates receive and act upon certain details of the committee's major projects.

POST-GRADUATE STUDY

The Committee agrees with the Commission on Medical Education that "The educational sequence from pre-medical training to retirement from practice should be looked upon broadly as a single problem, not a succession of isolated and unrelated experiences. * * * * The social, economic and educational implications of any program designed to accomplish this purpose are an outstanding challenge to the medical profession and medical educators." On the road of medical education no individual is privileged to idle. This is the common law of medicine, a harsh law, yet one from which medicine draws its favored place in the march of the professions.

According to the report submitted on July 12th, less than 50 per cent of the general practitioners in Michigan engaged in post-graduate study during the past 10 years. In other studies, like evidence has been accepted as depicting a general failure to continue study after graduation. The Committee, however, drew no such conclusion. In its opinion the data were incomplete in that no weight was given to informal educational activities, such as hospital staff meetings, scientific meetings, individual study and research, et cetera.

Before any clear picture of post-graduate needs can be presented, it is necessary to learn something about the physician's devotion to informal as well as to formal study. With the approval of the Council of the State Medical Society, the Committee on the Survey of Medical Services and Health Agencies prepared a general plan for securing such information from approximately 1000 general practitioners in large and in small communities. The proposal now is for the Committee on Medical Economics to complete the study under the direction of a special sub-committee on medical education: C. G. Jennings, Chairman, James E. Davis, and Roy D. McClure. The major features of the proposed study include the following:

1. The preparation, testing and mailing of a schedule of questions dealing with medical subjects and with information concerning the individual's post-graduate training.
2. A correlation of the answers received with information concerning both formal and informal post-graduate training.
3. The presentation of recommendations for consideration by the House of Delegates.

Only upon the basis of such a study does the committee feel that sound and practical recommendations may be made.

THE MEDICAL CARE OF INDIGENTS

Indigency is a relative state. It is usually looked upon as a condition of need arising from unemployment. The needs are those specific ones concerned with food and such protection as shelter, fuel, and clothing. Like a chemical formula, then, the elements that make up unemployment react to produce the common compound of indigency.

If this condition obtained with reference to medical indigency the problem facing the profession would be greatly simplified. What makes it complex is the fact that many otherwise indigent persons never become medically indigent because the need for medical service does not arise. Conversely, many employed individuals not otherwise regarded as indigent may become medically indigent because of the nature of their needs. It is this second group that is very largely responsible for the friction that has been engendered in the discussions of medical costs. The Committee proposes to consider this group in the third aspect of its program and to confine itself here to a consideration of plans for the medical care of *unemployed indigents*. Dividing the problem into its component parts simplifies both the study and future planning.

In accordance with Recommendation III, the Committee proposes to obtain data from at least four areas in the state: Oakland County, Muskegon County, Battle Creek, and Genesee County. In each of these areas the plans show distinct difference in both organization and administration. For purposes of comparison one county where the care of indigents follows no specific plan will be studied.

The objectives of these surveys will be to study the merits and defects of different plans, the quantity and quality of service rendered, and the relation between the value of the services and the actual expenditures by the communities. In three of the areas it will probably be necessary to develop a system of recording for at least a six months' period to secure adequate data.

The possession of the data from these studies should serve to bring some order out of the disordered and chaotic condition now seen in the medical care of indigents. It should make possible the development of sound local programs upon the basis of definitely established contributions by the profession and the public rather than upon ill conceived, hurriedly prepared or purely competitive contracts.

HEALTH INSURANCE

The committee defines health insurance as a device having for its purpose the equalization of the economic burdens of illness. To this end individuals make regular and definite contributions to a fund and for these contributions receive stated medical services according to their needs. Thus, medical care becomes a budgetable item in the costs of living. Viewed in this light it is seen that health insurance is not a device to reduce the costs of illness. In fact, the reverse would be true. The burden, however, would fall evenly upon many individuals rather than, as at present, upon a few.

As pointed out in the report, certain grave defects are observable in health insurance systems in Europe. These observations resulted in the adoption of the previously mentioned policies by the House of Delegates. The hope of the profession in the United States lies in its ability to benefit from the experience and errors of the profession in other countries. Therefore, the Committee has devoted itself to the study of health insurance and now presents to the delegates the following series of steps which it regards as a logical sequence of action toward a plan or plans:

1. The definition of the insured group of the population, according to income. The Committee feels that it now has sufficient data upon which to make a decision concerning the upper limit of income of the insured group. Such information includes income and cost of living data as well as a knowledge of the incidence of sickness and the costs of medical care.
2. The definition of "family." On the assumption that no plan of health insurance which excludes the family of the employed individual would be acceptable to either the profession or the public, the Committee proposes to define this social unit of the population. Such a defini-

tion is fundamental in that it will determine the number of people in the insured group.

3. The determination of what medical services are to be provided. The committee will attempt to define as precisely as possible the service benefits to which the insured group shall be entitled.
4. The determination of the probable need for services over a given period of time. Based upon items 2 and 3 the Committee will be able to work out its predictions of the need for medical services by the insured group. It is at this point that the Committee feels that it must exercise caution in making conservative estimates. Upon the conservatism of these estimates will depend the economic success of the program.
5. The preparation of fee schedules. This step naturally follows the definition of the insured group, the designation of medical service, and the predictions of medical needs. The Committee will seek the aid of the members of the profession and the allied professions in the preparation of fee schedules for general practitioners, specialists, hospitals, laboratories, and any other services included under Item 3.
6. The determination of the costs of medical care per family according to the fee schedules adopted for the specified services.
7. The organization and administration of the system. The policies already adopted by the House of Delegates must be given concrete form in this part of the plan. "Free choice of physician," "professional control of services," and the "exclusion of commercial organizations" will be made a part of the plan of organization and administration. At the same time the Committee will secure advice concerning the legal status of health insurance so that the position of the profession may become clearly defined. Finally, the Committee will prepare estimates of the costs of administration.
8. Estimates of Total Costs including the costs of services, the costs of administration, and any reserves for emergencies.
9. The presentation of the detailed data and plans to the House of Delegates. While the Committee hopes that it may proceed to this point without a special meeting of the House of Delegates in all probability certain questions will require action by this body. To the end that any meeting shall be that of an informed body the Committee will prepare progress reports during the course of its deliberations for the individual delegates.
10. The formal presentation of the plan or plans to industry and to the consumers of medical service. Since any plan adopted must function through the joint efforts of medicine, industry, and the consumers of medical service the Committee requests the approval of the House of Delegates for informal discussions with all groups concerned. For example, discussions with selected industrial leaders upon questions of payroll deductions, the attitude of industry toward contributions for extremely low income groups, the question of compulsion within an industry, and like problems will have an important bearing upon the Committee's recommendations to the House of Delegates.
11. The submission of the final plan to the House of Delegates.

It is obvious, from the brief outline presented, that the Committee's program is not one of precipitous action. If Michigan is to assume leadership in medical economics, it will be the leadership of calm consideration rather than that of hasty and forced activity.

W. H. Marshall, *Chairman*
F. R. Baker
L. G. Christian
B. U. Estabrook
C. S. Gorsline
F. W. Warnshuis, *Secretary*

SUB-COMMITTEE REPORT

The Sub-Committee appointed to discuss and report upon (1), the post-graduate education of the general practitioner, and (2), the necessary standard of qualifications that should be required of the specialist for recognition as a competent practitioner in his special field of practice, submits the following report:

1. Post-graduate education of the general practitioner. The return of the family practitioner of medicine to his proper place of responsibility and activity in the professional body is one of the outstanding trends of present medical thought. Clinical and laboratory research has in recent years added enormously to the sum of medical knowledge. While the general practitioner, because of limited time and opportunity, cannot hope to master the theory and practice of the several specialties, he may by post-graduate study keep himself so informed as to be a safe counselor in the many intricate medical problems that frequently confront him and which may demand the fuller knowledge and experience of a medical specialist.

Briefly, in addition to his proficiency in everyday family practice, he should have, in outline, a reasonable knowledge of the remarkable resources of the special departments of modern medicine and surgery.

The line of inquiry tentatively considered by the committee includes:

(1) A statistical survey of the needs of the general practitioner in post-graduate study.

(2) An enumeration of the facilities for post-graduate study at present available in the State.

(3) Some plan for the extension and better correlation of these facilities, and to bring them within easy reach of the practitioner.

(4) Some plan to stimulate the practitioner to take advantage of his opportunities for post-graduate education.

Dr. N. Sinai, working with the Committee, has devised a plan for learning the general practitioner's requirements in post-graduate study, which he will present to the House of Delegates for consideration.

Your Sub-Committee respectfully requests an extension of time for the study of this subject.

2. Qualifications of Specialists.

The increase in the number of recognized specialties in medicine and surgery and the great increase in the number of practitioners who, with or without adequate training and experience, announce themselves as specialists, have brought to the profession the problem of establishing some standard of qualifications for specialists and of properly informing physicians and the public of those who meet this standard.

Various national medical organizations have taken action upon the subject. Groups of special societies have appointed Boards for the examination of voluntary candidates for certification as competent practitioners in their several specialties. To this time the following Boards have been organized:

The American Board of Ophthalmic Examinations, 1916.
The American Board of Otolaryngology, 1924.
The American Board of Obstetrics and Gynecology, 1930.
The American Board of Dermatology and Syphilology, 1933.

Committees representing the special societies of pediatrics, neuropsychiatry, orthopedic surgery and radiology have been appointed to organize similar Boards.

The American Medical Association has adopted a standard of qualifications for radiologists and pathologists.

The joint session of the Council on Medical Education and Hospitals of the American Medical Association and the Federation of State Medical Boards of the United States held in Chicago, February 13, 1933, after a very full discussion, adopted the following resolution:

"Resolved, That it is the sense of this congress that the Council of Medical Education and Hospitals of the American Medical Association be asked to carry forward its plan in developing control of the specialties, first, by calling a conference of representatives of the groups concerned." (Journal A.M.A., April 8, p. 1114.)

At the Milwaukee meeting of the American Medical Association the House of Delegates adopted the report of the Council on Medical Education and Hospitals, which contained the following resolution:

"Resolved, That should the House of Delegates so order, the Council is prepared to extend to other special fields of medicine the service which it has rendered in the fields of radiology and pathology to the end that members of the medical profession and others who may be concerned may be able readily to distinguish those who have received training in the various branches of medicine from those who are merely self constituted 'specialists.'" (Journal A.M.A., May 6, p. 1424.)

The House of Delegates adopted, on recommendation of the Reference Committee on Medical Education, a resolution introduced by Dr. Samuel J. Kopetzky and amended by the Reference Committee, part of which is as follows:

"Whereas, There is evidence of a widespread interest in the problems of medical specialism and a very general demand that means be found and standards formulated by which specialists may be known and recognized by their fellows in the profession, and that in this process of standardization there should be a national and uniform standard rather than a multiplicity of standards represented by the various state boards and state societies, and

Whereas, A number of special examining boards, the American Board of Ophthalmic Examinations, the American Board of Otolaryngology, the American Board of Obstetrics and Gynecology and the American Board of Dermatology and Syphilology, have been created to test the fitness and certify the qualifications of men engaged in, or desiring to engage in, special fields of practice, and such certificates have come to be regarded as establishing the skill and proficiency of those to whom they have been issued, and

Whereas, The Council may contribute to the usefulness of these special examining boards by granting some form of recognition to those which now, or hereafter, maintain satisfactory standards of organization and procedure: therefore be it

Resolved, That the Council on Medical Education and Hospitals is hereby authorized to express its approval of such special examining boards as conform to the standards of administration formulated by the Council; and be it further

Resolved, That the Board of Trustees of the American Medical Association be urged to use the machinery of the American Medical Association, including the publication of its Directory, in furthering the work of such examining boards as may be accredited by the Council." (Journal A. M. A., July 1, P. 47.)

This resolution was fully discussed by representatives of various interested bodies.

The consensus of opinion as revealed in the discussions as noted above was that there should be national and uniform standards of qualifications for practice in the various medical and surgical specialties rather than a multiplicity of standards, which might be adopted by state examining boards and state societies acting independently.

In consideration of the foregoing your Committee recommends:

(1) That action by the society looking to the regulation of the practice of the medical and surgical specialties in the State be postponed pending the development of the plans of the American Mdical Association and of other interested national medical organizations.

(2) That the names of specialists in Michigan holding certificates of qualifications from the several national boards of examiners for specialists and from the American Medical Association be published annually in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY.

DR. C. G. JENNINGS, *Chairman*
DR. ROY D. MCCLURE
DR. JAMES E. DAVIS

The Speaker: You have received Dr. Marshall's report and also heard his suggestion as to its disposal. Does any member wish to make a motion following the line of Dr. Marshall's suggestion?

Dr. R. M. McKean (Wayne): I move that the deliberation on this question be put over until this evening to allow some digest of the report to be had.

The Speaker: Will you put in your motion that it be made a special order of business when we start this evening? That will help the Chair.

Dr. McKean: Yes, I will include that.

Dr. F. T. Andrews (Kalamazoo): I support the motion.

The Speaker: It has been moved by Dr. McKean of Wayne, and supported by Dr. Andrews of Kalamazoo that the discussion of this report be deferred until this evening so that you members may study this report. In that motion he included that it be made a special order of business to be taken up immediately at the opening of the session.

Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

We will now receive the report of the Legislative Committee, Dr. Carr, Chairman.

The Secretary: Mr. Speaker, the reports of all the standing committees of the House of Delegates have been printed in the JOURNAL and are in the hand program. I should like to suggest, in conserving the time of the House, that the chairman of each committee be given the opportunity to review briefly the essential points of his report, and that it then be referred to the Reference Committee.

The Speaker: You have heard the suggestion from the Secretary. Is there any objection? The Chair will not put it in the form of a motion. If there is no objection, we will expect the chairmen to give a short résumé of their work. If that is agreeable, we will call on Dr. Carr to give his report.

Dr. Carr abstracted the report of the Legislative Committee.

The Speaker: After these different chairmen appear, it will be understood that these reports will be referred to the Committee on Committee Reports.

Next is the report of the Chairman of the Civic and Industrial Relations Committee, Dr. Collisi.

Dr. Harrison S. Collisi abstracted the report of the Committee on Civic and Industrial Relations, and also presented a supplementary report.

CIVIC AND INDUSTRIAL RELATIONS COMMITTEE SUPPLEMENTARY REPORT

The Civic and Industrial Relations Committee this year concentrated its activities upon a study of the needs for a professional lien law. A tentative law was drafted similar to the one recommended by the Bureau of Legislation of the American Medical Association. Owing to the congestion of legislative matters in Lansing, it was deemed advisable to withhold introduction of the bill into the Legislature this year.

A professional lien law makes it possible to place a lien against a claim for liability so adjudged in the proper court. It does not apply to industrial accident cases. It means that before a claim is paid to an injured individual, the medical expenses incurred, including physicians', hospital, dental and nursing services, must be paid. At present thousands of dollars are lost annually for services to accident cases, which have been rendered by physicians, dentists, nurses and particularly the hospitals. Statistics from hospitals in large cities show that losses are abnormally high. One authoritative source states that hospitals in the United States annually are unable to collect at least $5,000,000 for services rendered to automobile accident patients.

In our own city of Grand Rapids, a Butterworth Hospital taking as a representative year 1929 there were 1,399 accident cases, 22 per cent of which were due to automobile accidents, and only about 50 per cent of these cases were paid for. In 1932 in 1,031 cases, 17 per cent of which were due to automobile accidents, a similar 50 per cent was all that was paid for. No charity or indigent cases are included in these statistics.

The states of Delaware (1931), Montana (1931), Nebraska (1927), New Jersey (1930), Oregon (1931) and Virginia (1932) all have professional lien laws in some form or other. Other states have proposed laws under consideration at the present time.

With the new automobile liability law going into effect next month whereby the driver's license of an individual becomes revoked and he is not permitted to drive a car if he does not pay a judgment for damages legally awarded, it will doubtless cause a greater number of automobile drivers to carry personal liability insurance.

Therefore, it does seem that during the coming year the Civic and Industrial Relations Committee should actively foster the introduction into the State Legislature of a professional lien law. Every effort should be made to secure the coöperation and a better understanding with the insurance companies and legal profession in order to arrive at some mutually satisfactory arrangement, whereby hospitals, dentists, nurses and the medical profession may be assured of being paid for services rendered to individuals financially responsible. As it now stands the people of the community and the state are eventually called upon, through contributory funds and taxation, to support the hospitals and institutions that have rendered services to many of these cases. The great burden is upon the hospitals and medical profession, who are usually the victims of procrastination on the part of the individual and delays in litigation.

It is urged that the committee appointed for the coming year should devote a portion of its efforts to this subject.

It is urged that the committee appointed for the coming year should devote a portion of its efforts to this subject.

Respectfully submitted,
HARRISON S. COLLISI, M.D., *Chairman.*

The Speaker: This will be referred to the Committee on Committee Reports also.

PRESS COMMITTEE

Dr. A. V. Wenger (Kent): I have a resolution I would like to present to the House at this time.

The Speaker: This is not the order of business, but if there is no objection we will give Dr. Wenger the floor.

Dr. Wenger presented his resolution relative to the formation of a Press Committee.

RESOLUTION

WHEREAS: It is desirable that the deliberations and actions of the House of Delegates be imparted to the public through the press in a frank and accurate manner, therefor

BE IT RESOLVED: That this House of Delegates create a Press Committee, for that purpose, Composed of the Speaker, the Chairman of the Reference Committee on Reports of Standing Committees and Report of the Council, and the Chairman of the Council or his proxy.

BE IT RESOLVED: That delegates refer all press representatives to this Press Committee when approached for information or comment.

The Speaker: The Chair will ask the Secretary to read the resolution again.

The Secretary re-read the resolution.

The Speaker: The Chair will suggest that the Speaker be excluded on account of his many duties. I would suggest that a chairman be appointed, and that you include that in your resolution, Dr. Wenger. What is the personnel?

The Secretary: The Speaker of the House, the Chairman of the Reference Committee on Reports of Standing Committees; the Chairman of the Committee on Reports of Officers and Council, and the Chairman of the Council or his proxy.

The Speaker: Your Speaker would like to get a

suggestion to change that a bit, so as to have a Chairman of this Press Committee.

You have heard the motion, and we will go through with the motion first. Dr. Wenger made the motion, and it has been supported by Dr. Brucker of Ingham County. Is there any discussion?

Dr. B. L. Connelly (Wayne): Wouldn't it be a wise plan to allow this committee to select their own chairman?

The Speaker: That fills the bill. I can creep out of it that way. Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Report of the Committee on the Women's Auxiliary.

Dr. T. F. Heavenrich (Huron): I have no report to make.

The Speaker: Next is the report of the Radio Committee, Dr. Stapleton, Chairman.

Dr. Stapleton gave an abstract of the report of the Radio Committee.

The Speaker: Committee on Preventive Medicine. Dr. Geib of Wayne.

Dr. L. O. Geib (Wayne): I will ask the Secretary to read this, and I will distribute copies.

The Secretary read the report of the Committee on Preventive Medicine.

REPORT OF COMMITTEE ON PREVENTIVE MEDICINE

The following recommendations to the State Medical Society were adopted at a meeting of the Committee on Preventive Medicine at Battle Creek, Michigan, August 22, 1933:

1. The Committee strongly favors the establishment of whole-time county health departments. Where population is sparse, district health departments would be organized to cover two or more counties. Such health departments should employ a full-time health officer and adequately trained personnel, including one or more public health nurses.
   a. In order to obtain the establishment of a county health unit, the Committee advocates the active participation into a campaign to educate the public in the advantages of such a unit; *i.e.*, economy of operation and a better and more complete service.
      (1) Through coöperation with other interested groups.
      (2) Through newspaper stories.
      (3) Through a Speakers' Bureau (to contact Lions, Kiwanis, Parent-Teacher Associations, etc.)
      (4) Contacts with public officials.

2. The Committee believes that there are many preventive medical procedures which can be more efficiently and effectively carried on through the coöperation of qualified and properly prepared practicing physicians, coöperating physicians rendering services in their own offices. Every practicing physician should become in fact a practitioner in preventive as well as curative medicine.

3. That portion of the program for the protection of young children against smallpox and diphtheria has been found an excellent means of stimulating the interest of the practicing physician and has served as a stepping stone in a program involving general medical participation in public health services.

4. The Committee feels that the two prime essentials are first, an alert and interested local medical profession and second, a full-time local health department, the function of which shall be purely administrative and educational, and not actively engaged in practice of medicine.

5. It has been found in Detroit and elsewhere that the usual publicity methods employed in health education will not suffice to procure the protection of the majority of preschool children against diphtheria. There is required a personal contact between a health educator and the parent. The public health nurse with house to house visitation is the most effective contact agent. Therefore, every county health department should have a sufficient number of public health nurses to carry on this type of educational work.

6. The Committee feels that it is just and proper that the physician should be reimbursed from the public funds for services rendered to indigents and there should, if possible, be set aside in each county an appropriation with which to pay the physician a small honorarium for services to individuals unable to pay. The Committee feels, however, that failure to secure such an appropriation should not militate against the plan since it is to the interest of the individual, the community and the physician to bring about such a program of medical participation.

7. The Committee feels that for the time being the work in Michigan should be carried on preferably in areas with full-time and adequate local health service.

8. There should be organized in each county medical society a local committee to work with the health officer and other public officials.

9. It is recommended that each such area select its committee in September and that a meeting be arranged with such committee members and the Preventive Medicine Committee of the State Medical Society to be held not later than November.

The Speaker: Next we will have the report of Delegates to the American Medical Association.

Dr. C. S. Gorsline (Calhoun): I wish to report that the five delegates from your State Society to the American Medical Association, as published on Page 4, attended every session of the American Medical Association's convention in Milwaukee. Due to the fact that Dr. Warnshuis is the Speaker of the House of Delegates of the A. M. A., Dr. Moll took his place on the floor as alternate.

The American Medical Association had a very good meeting, and Milwaukee entertained in its royal manner. Inasmuch as the complete, detailed proceedings of the House of Delegates has reached each and every member through the A. M. A. Journal and is very exhaustive, and inasmuch as there was nothing of special interest to Michigan alone, and inasmuch as there is a great deal of material for this House of Delegates to act upon at this session, your Delegates feel that taking your time now for a detailed report of this is not only unnecessary but inadvisable. If you wish to take the space in the JOURNAL, we will publish it later. If you wish a more detailed report, we can make it later at this session.

I would move that this constitute the report of the A. M. A. Delegates in title only, and not in detail. I so move, Mr. Speaker.

Dr. H. A. Luce (Wayne): I support the motion.

The Speaker: You have heard the motion. Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Next we will receive the report of the Special Committee on the Study of Birth Control. Dr. Alexander M. Campbell, of Kent.

Dr. Campbell gave his report for the Committee on the Study of Birth Control in abstract.

Dr. Alexander M. Campbell (Kent): If I may be permitted to discuss this for just a moment, I feel that in the preparation of this report, gentlemen, the Committee endeavored to prepare a conservative, constructive, and inoffensive report, realizing the controversial character of this problem. The Committee simply asks that the Society endorse the study of contraception.

I may say, if you will pardon a personal reference, that I have been interested in this subject for over fifteen years, and I think I am as conservative as the ordinary physician. I have not felt, until the last year or two, that the time was right for organized medicine to interest itself in this problem. But I believe the time has now come when we physicians should take a stand and should assert leadership in this question.

I thank you very much.

The Speaker: Gentlemen, we will refer this to the Committee on Committee Reports.

The Committee on Amendments to the Constitution and By-laws. Dr. Christian, Chairman.

Dr. L. G. Christian (Ingham): We haven't completed our studies as yet, and we will report later on.

The Speaker: Next is resolutions and new business to come before this assembly.

RESOLUTIONS

Dr. C. F. Moll (Genesee): Mr. Speaker, and Members of the House of Delegates: In line with some recommendations made by your President Elect, Dr. Le Fevre, I wish to offer the following resolution.

RESOLUTION

WHEREAS: Many of the misunderstandings and controversies between patients and physicians can be settled in an amicable manner by a conference with disinterested persons, therefore,

BE IT RESOLVED: That a State Grievance Committee be created by authorizing the Council to appoint such a committee to be composed of two physicians and one layman, preferably an attorney and the Secretary as clerk, and

BE IT RESOLVED: That members be urged to bring incidents of disagreements with patients before this Grievance Committee for arbitration and settlement.

The Speaker: This resolution will be referred to the reference committee on Society Affairs.

Dr. H. A. Luce (Wayne): I have a resolution.

The Speaker: You may present it.

Dr. Luce: Mr. Speaker, and Members of the

House of Delegates: I wish to offer the following resolution.

RESOLUTION

Whereas the Medical Profession of the State of Michigan has keenly felt the economic stress and added burden to our already overtaxed contribution to the welfare of the financially distressed:

Be It Resolved that the House of Delegates of the Michigan State Medical Society endorse the efforts of the present administration of Washington to arrive at a solution of its problems and further, that the code of the N.R.A. be endorsed by this body.

The Speaker: This resolution will go to the Committee on Miscellaneous Business.

Dr. C. S. Gorsline (Calhoun): Mr. Speaker, I have a resolution.

RESOLUTION

Whereas: Hospital Insurance has been, is being and will be promoted by various hospitals, companies and groups, therefore

Be It Resolved: That members of County Medical Societies be requested to decline to render service under these policies that also include professional care unless the remuneration for services is approved by the County Medical Society and the plan or insurance provides for free choice of physician and hospital, and

Be It Resolved: That any member who violates these conditions shall have his membership terminated and be no longer eligible for membership in his County Medical Society, and,

Be It Resolved: That a copy of this resolution be sent to the officers of every County Society and hospital superintendents.

The Speaker: This resolution will be referred to the Committee on Society Affairs.

Dr. Frank Reeder (Genesee): I have a resolution which I desire to read at this time.

Dr. Reeder read the resolution with respect to petitioning the Executive Committee of the Michigan Tuberculosis Association to hire a qualified physician as executive secretary.

RESOLUTION

Since it is recognized that there are newer methods used in diagnosis and treatment of tuberculosis today, and since the whole project of relief and the field of education in prevention and care are essentially dependent upon medical and clinical knowledge and training.

Be It Resolved that the Genesee County Medical Society is hereby interrogated and asked to petition, if it meets with its whole hearted approval, the House of Delegates of the Michigan State Medical Society to request the Executive Committee of the Michigan Tuberculosis Association to hire a qualified physician as Executive Secretary.

This is the sentiment of the Executive Committee of the Genesee County Tuberculosis Association, the personnel of which is Messrs. C. J. Ross, Lee H. Lamb, P. J. Braun, M. A. Gorman, Harry G. Gault, W. S. Ballenger, and Dr. W. H. Winchester.

August 28, 1933.

F. B. Miner, *President,*
Genesee County Tuberculosis Association.

The Speaker: This resolution will go to the Committee on Miscellaneous Business.

Is there any other new business?

Mr. Secretary, have you anything you wish to bring up?

The Secretary: There has been no definite time set for the House of Delegates to convene, but it has been arbitrarily set in the program that the session tonight shall be at seven forty-five, at ten o'clock tomorrow morning and, if necessary, at two-thirty or three o'clock tomorrow afternoon, and then the final session tomorrow evening at seven-thirty.

Motion should be made that those hours, if it meets with the pleasure of the delegates, be designated as the hours for the House to convene: seven forty-five tonight, ten o'clock tomorrow morning, two-thirty tomorrow afternoon, and seven-thirty tomorrow night.

The Speaker: The Chair will entertain a motion.

Dr. Wm. J. Stapleton, Jr. (Wayne): I will make such a motion.

The Secretary: Incidentally, there is an error in the program under election of Councilors. The two Councilors whose terms of office expire are: Dr. Burke, of the upper peninsula, and Dr. Treynor, who served the unexpired term of Dr. Le Fevre. Dr. Van Leuven is not a candidate, and Dr. Bruce is not a candidate this year. Their terms of office expire next year.

The Speaker: You have heard the motion. Does anyone second it?

The motion was regularly seconded.

The Speaker: Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

The House will recess until seven forty-five this evening.

The meeting recessed at four-thirty o'clock.

Second Session

Monday Evening, September 11, 1933

The second session of the House of Delegates was called to order at seven fifty-five o'clock by the Speaker.

The Speaker: Come to order, gentlemen, and listen to the roll call.

The Secretary: I hold in my hand fifty-three signed roll call certificates of the House this evening. I suggest that some member move that this constitute the House for this evening's session.

Dr. A. V. Wenger (Kent): I make that motion.

The motion was regularly seconded.

The Speaker: It has been moved and seconded that the signed roll call as read by the Secretary constitute the roll call of this House. All in favor of the motion say "aye"; contrary, "no." It is carried.

The Speaker: Dr. Carney, have you any supplementary report as Chairman of the Credentials Committee?

Dr. Carney: There were a few more registrations. I couldn't tell you just the number. I have handed in the credentials, and I think there were seventy-six.

ECONOMICS COMMITTEE

The Speaker: The report of the Committee on Economics, Dr. Marshall, is a special order of business as we decided this afternoon. This is now open for consideration. Dr. Marshall.

Dr. W. H. Marshall: Mr. Speaker and Gentlemen: The tenure of office of my committee expires with this meeting. While I as Chairman of the Committee have acted as spokesman on all occasions, I do not wish the House of Delegates to think that the other members of my committee have been inactive. I want to pay tribute at this time to these earnest, hard working, clear thinking men. Each one of them has made his contribution. Each one of them has been active in submitting criticisms, and I think before general discussion on our report is opened it would be very nice if I could introduce my committee to the House.

I have pleasure in calling upon Dr. Christian of Lansing. Come up here, Dr. Christian, and tell them what a good fellow you are. (Applause.)

Dr. L. G. Christian (Ingham): I really don't wish to say anything about the Survey Committee. Dr. Marshall has well spoken for us.

At this time I would like to pay tribute to a physician who served the medical profession and shortened his life in so doing in the last legislature. Dr. John G. Rulison of Lansing, Michigan, was a member of the Michigan State Medical Society for nigh onto thirty years. He was a regular doctor and a regular man in organized medicine. He ran for the state legislature last year and was nominated and elected.

As chairman of the Public Health Committee in

the House, we in Ingham County know how hard he worked. The Legislative Committee of the State Society understands what Jack Rulison did for us. It is my personal opinion, as his physician, that he definitely shortened his life in so doing and working for us.

I feel that this House of Delegates should pay a little tribute to John G. Rulison who fought our battle well in the last legislature.

Dr. Marshall: May I introduce Dr. Baker of Pontiac. (Applause.)

I want to introduce the handsome man of our committee who doesn't like making speeches, but is very vocal in committee work, Dr. Estabrook of Detroit. (Applause.)

And Dr. Gorsline of Battle Creek. (Applause.)

The Speaker: The Speaker would suggest that we arise and stand in silence for a moment in memory of Dr. Rulison of Lansing.

The audience arose and stood in silence as a tribute to the memory of Dr. Rulison.

Dr. Marshall: Mr. Speaker, Dr. Sinai, who has been director of our study and has managed all the technical details of this report, has just returned from a six-weeks' visit to California. While there he made some very timely and interesting observations on medical conditions on the Pacific Coast. I was wondering, Mr. Speaker, if it would be the wish of the House of Delegates that Dr. Sinai be given the privilege of the floor for a few minuets.

The Speaker: What is the wish of the House? Would you care to hear Dr. Sinai for a few minutes? The Chair would be glad to grant the floor to Dr. Sinai.

Dr. Nathan S. Sinai: Mr. Speaker, and Members of the House of Delegates: I had about a month's vacation in California that developed very rapidly into a series of conferences on the subject of medical economics with the various professional groups in that state, much after the fashion of the postman's walk as far as conferences on medical economics are concerned.

Before leaving for California, I had heard a good many rumors of the situation in that state. It was regarded as a danger spot in the United States. Of course, those of us who are engaged in the field of medical economics are a bit chary about accepting long-distance information, because we never know what may be the personal prejudices of the individuals who present that information. It has much the same character as the telephone diagnosis in medicine.

So when I went to California I went without any preconception concerning the situation in that state and its possible effect upon the situation in Michigan.

Having been, having seen, and having heard much, I have the feeling that California is an extremely dangerous spot in medical economics in the United States. That feeling arises from the fact that I have a knowledge of the history of social legislation in this country, a history of legislation which shows a tendency to spread like wildfire once it starts in no matter which state there is evidenced certain leadership in a particular direction.

California is faced very directly with the problem of health insurance. It isn't a nebulous thing. It isn't something that has a very hazy outline and we are not even sure it is on the horizon. It is something very concrete and very definite.

California, at the last legislative session, had a resolution presented before the Senate. The resolution was passed, and I will read it for your general information. You can use your own judgment on it. This is taken from the *Senate Daily Journal.*

"Senate resolution introduced by Senator Williams relative to the appointment of a senate committee to investigate and report on a health insurance act for the reduction of the high cost of illness:

"Resolved, By the Senate of the State of California at its Fiftieth Session, commencing the second day of January, 1933, that the president of the Senate shall on or before the final adjournment of this session appoint a committee of three members of this body to report at the opening of the next regular session (which is in January, 1935; not, as they said in California two years away, but only fifteen months) 'of the legislature as to the advisability of a health insurance act; and if, in the opinion of said committee, such an act be advisable, to accompany its report by a draft of a bill therefor. Said committee shall have the power; it shall be its duty to confer and advise with the State Board of Health as to the scope and provisions, and with the Attorney-General as to the form and constitutionality of such act and the several provisions thereof.

"The object of such act shall be, so far as it may be legal and practicable, to provide for a reduction of the high cost of sickness by establishing a system of contributions on a working day per diem basis for all employees in all classes of labor receiving average annual earnings of less than $2,000."

Then it takes up a few more of the details.

"Said committee shall also consider and report upon the practicability of contributions by the state to the health insurance fund, and the proportion of employees' contributions to be matched by the state."

It is interesting, in this connection, to note that nowhere in the committee's report you received this afternoon was any statement made relative to taxation, the entrance of the state into the entire picture.

"Said committee shall choose its own officers, and meet at such times and places as it may select.

"In order to enable the committee to make a comprehensive investigation of this vital problem, the committee is hereby authorized to accept donations from philanthropic persons, foundations, and others interested in this constructive work to spend such donations in carrying out the purposes thereof."

The committee is now organized. No medical man is a member of the committee. Apparently the donations have been received, because a secretary has been appointed at a fairly good salary. I am beginning to wonder now who is going to write the ticket. The ticket is written and, according to the representatives of the profession in Sacramento, the act will be presented. Those representatives say the act shows great likelihood of being passed.

I am wondering who is going to write it, because I fear the effect upon Michigan, Ohio, New York, and upon every other state of the Union, because the tendency of legislators is to lift from one state without paying a great deal of attention to the conditions in their own states.

The question now is (of course this follows the history of health insurance): Why do we need to repeat history? And the answer is that apparently too few people know anything about history, and therefore the repetition goes on indefinitely.

What is the position of the profession in the state of California? I was at a loss to describe the position of that profession until this afternoon, and I got the key from Dr. Robb's address. Dr. Robb said, as I remember it, "I have no message to Garcia." And California within the profession has an abundance of messages to Garcia. If Garcia receives all the messages at about the same time, I assure you Garcia is going to develop a terrific headache, because no two of the messages are alike. They come from within the profession, and the people who are supporting the messages and the plans cannot be charged with having a personal view only of the problem. Scientifically, they are high in the profession. From the standpoint of economics, the profession is broken up into groups and cliques.

I found a part of the profession is supporting this resolution before the state legislature. Another part of the profession headed by, to be sure, a minority group (but a minority group is always strong when you have an inner majority group) is interested in a plan for the development of industrial medical service. Another one is interested in the discussion

of group hospitalization, the thing that is being talked about by the American Hospital Association in Milwaukee while you are meeting here in Grand Rapids. Then another group is talking about the partial payment plan.

I heard the scheme described in a very large and very broad manner, as most of those schemes are usually described, leaving questions of detail (and those are always the detail) to the smaller minds in the profession in the community. I heard of dozens of commercial plans in California. Reducing the whole thing to absurdity in Oakland, at a meeting with one of the committees of the county medical society, there was a bit of raillery over what the real estate men are doing in that city, renting apartments and houses and with the apartments and with the houses goes medical service. If you stay in the apartment or the house a year, you receive a limited service. If you stay two years, you receive more service, and if you stay three years, from then on you receive an unlimited medical service. In other words, there medical service is the coupon in the package of cigarettes, and as you buy your cigarettes you get your medical service thrown in with it.

I am not talking about things that are not happening. These things were reported by physicians in Oakland, California. That is the ferment working in one state.

We discussed the Michigan report, and they said California's problems differ from the problems of Michigan. After some discussion (this happened to be with the executive committee of the state medical council in San Francisco) the state medical council agreed probably the problems in California did not differ so greatly from the problems in Michigan. The conclusion was drawn that it was a fortunate thing that Michigan (it may be unfortunate for Michigan) happens to have a cross section of practically all the medical economic problems in the United States, which makes your problem that much more difficult; and if you offer a solution it makes its possible distribution that much wider.

Finally, there came the discussion of indigents, the thing we talked about somewhat today. They are intending (they intended but didn't succeed) the passage of a law to control indigents, and the first question that came in the discussion of indigency was: How do you define medical indigency? I had heard Dr. Marshall's committee struggling with that problem for weeks, and they couldn't seem to define medical indigency. According to the present system, I drew the conclusion that either Dr. Marshall's committee was obtuse or they didn't have a definition of indigency.

So they passed out an act, half a page of which is devoted to the definition of medical indigency, and one only needs to read that half page to come to the conclusion that without any difficulty he could drive an automobile through that definition without scratching any of the fenders. That is how far one gets when one resorts to legal methods in medical economic problems.

Finally, the Californians said, "Why is Michigan so free of these schemes for the provision of medical service?" I couldn't give them a complete answer because I didn't know. I finally said, "Michigan isn't free of schemes."

Dr. Marshall, the officials of the State Medical Society, and the members of the committee know that Michigan is not free of schemes, because we listened to one last night. Many have come to the members of the committee, and to the officials of the various local societies, schemes for the commercial distribution of medical service. But I said, "The only variant between California and Michigan, as I can see it, is the fact that in Michigan the medical profession has been working on the problem for three years, and it is known that the profession has been working on the economic problems within that state. The commercial organizations are not going to sink any money in a state where their plans may be twisted badly by a program adopted by the organization."

I said further, "The medical profession is not broken up, as your profession is broken, into the cliques and into the groups, because you have not in this state (California) a basis of factual evidence from which conclusions should naturally flow as the profession has in Michigan."

I told you last time, I think, that there are two schools of thought concerning the position of the profession in medical economic problems. I belong to one school, and I can count inside the profession (there aren't very many outside the profession) my colleagues in that school on the fingers of one hand. It is a pitifully small minority. That school quite rigidly adheres to the view that the solution, whatever it may be, should come from inside the profession, from inside the organization.

Then there is the other school, and the number of adherents to this other school of thought are legion. They say, "It can't be done." Each one of the schools has its shining mark. My school points to Michigan, and the other school points to California. That is their shining example. This state is mine.

I am no messenger of Job heralding disaster. One gets nowhere that way. But I have the feeling now that it won't be long until one school or the other will be in the position to say, "I told you so."

In spite of the fact that I am one of those horrible statistical persons, I am still human enough to hope that the statement, when it is eventually made, will be made by my school.

The Speaker: Now, gentlemen, this report of the Committee on Medical Economics is before you for consideration. This is really important enough to have a free and frank discussion.

Dr. J. L. Chester (Wayne): I think all of the delegates appreciate the work that has been done by this committee. It is really an epoch in the history of the Michigan State Medical Society.

But because the Chairman of the Council said that they would probably have to borrow money to carry on the activities of the Society this year, I move that the report be received, placed on file, and the committee be discharged.

Dr. L. J. Gariepy (Wayne): I second the motion.

The Speaker: Gentlemen, this important subject is now the subject of a motion by Dr. Chester of Wayne, seconded by Dr. Gariepy. Is there any further discussion?

Dr. G. H. Yeo (Mecosta): I don't quite understand the significance of that motion. Does that mean that the work be discontinued?

The Speaker: Will you explain the sense of your motion, Dr. Chester?

Dr. Chester: Because the Society is short of means, and the Chairman of the Council said they would have to borrow money to carry on this year, I thought it would be well to discontinue the work for the present. That is the reason I made the motion.

At this time, the national, state, and municipal governments are conserving their means and getting along with less expense, so I thought it would be a good thing for the Michigan State Medical Society to do likewise.

Dr. B. R. Corbus: Did I understand Dr. Chester to quote me as saying the Society would have to borrow money?

Dr. Chester: I understood you to say, in making your report today, you would have to borrow money, or you were considering borrowing money to carry on.

Dr. Corbus: That was not in my report. I suggested that the State Society could no longer afford to go on in any degree with this survey. That was correct. I did not, however, say anything about borrowing money to go on. What I did say was that the Council suggested the Survey Committee be given authority to obtain money, not to borrow money. It seems the Survey Committee has some idea of obtaining money from sources outside the Society, free money, to be used in the extension of this work.

Dr. C. S. Ratigan (Wayne): I think before we do anything about this, we ought to know the source of that money. That is a very important thing in these days. If this money is to be given to this committee, where is it coming from, and who is the source of it?

The Speaker: Will you answer the gentleman's question? He asked where the money is to come from, and the source of it.

Dr. Ratigan: The future money.

Dr. Corbus: That I cannot answer. You will have to ask the Chairman of the Survey Committee what his thoughts and ideas are as to where they may be able to obtain money to go on with the survey.

The Speaker: It appears to the Chair that the intelligent discussion of Dr. Chester's motion must be predicated upon this money question. It is the only question that has been brought up in connection with the motion.

Dr. Marshall, can you answer the question of where additional funds might come from?

Dr. Marshall: I am not privileged to tell where the exact money may come from, but I may say that the committee would accept no funds from any source where they were committed to a definite propaganda for any system of medical economics. Further than that, I cannot go.

Dr. A. V. Wenger (Kent): This is a most important subject. The survey has only begun, and we have already spent quite a lot of money on it, and we are getting it cheaply for what we have spent. It seems to me it would be a shame to stop now, and would be a discredit to our committee in the first place. I think we should keep on with this survey, and some way or other get the money to carry it on. If we can't go on with it rapidly, go on with it slowly, but at least keep on.

Dr. Karl Brucker (Ingham): I move an amendment to the motion to delete the last phrase, which says that the committee be discharged. In other words, that the report be received and placed on file, but that the committee be not discharged.

The Speaker: The Chair will ask for reading of the original motion as put by Dr. Chester.

The amendment offered by Dr. Brucker was regularly seconded.

The Speaker: We have an amendment by Dr. Brucker to delete the last words, "the committee be discharged."

Dr. S. W. Insley (Wayne): I would still like to insist upon the answering of one question. After all, the House of Delegates is more or less of a closed committee. I don't see the necessity for such an air of secrecy. I would still insist upon the answering of the question as to where the money is coming from, because in answering the question of whether the organization is committed to one side or the other of this particular question, why should the air of secrecy be so closely held within the secrets of the Council? This is the House of Delegates, and I would still like to have that question answered. Where is the money coming from? Apparently there is a definite lead, or a very definite promise. I don't want to violate anybody's particular confidence, but I think we should have a little more information on that particular point.

The Speaker: Dr. Insley, the way the Chair understood it, if there is any secrecy here it wasn't with the Council. It is an inference on the part of Dr. Marshall that funds might be coming from some place. Am I correct, Dr. Corbus?

Dr. Corbus: The Council doesn't know any more than you do as to where the possible source of supplies are. The Council would look forward to a carrying on of this work in some way.

It would seem to me that it would be possible for the House of Delegates, if they saw fit, to put such guards around the acceptance of money as would guarantee that there would be no propaganda connected with it, if they felt (I wouldn't feel that way) that the Survey Committee could not be absolutely trusted to take that position themselves.

The Speaker: Dr. Marshall, do you want to broaden your statement just a little more to the satisfaction of the gentlemen?

Dr. Marshall: There are three or four sources from which money will be obtained. It is not possible to go to them until we see whether we have a united profession or not. If there is a big split in the profession, we are coming to nothing at all. The committee wouldn't feel like accepting any funds unless it met the approval of the House of Delegates and of the Council. We wouldn't do it under our own initiative at all.

Dr. Insley: As long as it meets the approval of the House of Delegates, it is perfectly satisfactory. It wasn't quite satisfactory in my own mind. As long as it comes through the House of Delegates, I am very well satisfied.

The Speaker: The Chair doesn't wish to be distatorial, but as a thrifty Dutchman I don't feel like throwing $10,000 worth of material away. Dr. Chester's motion is based on the fact that it will cost more money. Apparently this has been answered satisfactorily by Dr. Marshall, that more money might be available. If such money is accepted, it will only be accepted on approval of the House of Delegates.

Gentlemen, that motion is before the house, and the amendment. Is there any further discussion?

Dr. L. J. Gariepy (Wayne): May I ask the Chair, or Dr. Marshall, just what has been the exact cost of this survey to date.

Dr. Marshall: I think Dr. Warnshuis reported that. It is between $10,000 and $11,000.

The Speaker: The Secretary will give you some idea of the cost.

The Secretary: Mr. Speaker, the expense involved since the creation of Dr. Marshall's committee, up until September 1, is $10,216.86, with approximately $187 in bills that are unpaid to date. I would be glad to give you the itemized statement of the account if you would like to have it.

Dr. Gariepy: That isn't necessary. I bring this matter to your attention for just the one point I want to make: Is this report to date worth $10,000 to us? Is it going to justify our spending $10,000 more? Isn't it more feasible to attack this problem in a business-like manner and say we are going to spend so much money, and not exceed that?

I was one of the members, with Dr. Whitaker, who thought we wanted a survey. We had no idea we would spend more than $2,500 or $3,000. We have gone to $10,000. I don't think we can afford at this time to be spending any $10,000 for a survey, with no material help involved. .

Dr. Wm. S. Reveno (Wayne): I question the propriety of introducing a motion of this sort at this particular time. As we know, the Committee on Revision of the Constitution and By-laws has before it the consideration of the appointment of a standing committee on economics for the Society. Automatically, the present Committee on Economics is discharged with the submission of this report, and this report has already heen received by us. I think going through the motion of receiving the report and discharging the committee is entirely a superfluous action, and therefore we should not consider the motion as presented by Dr. Chester.

The Speaker: Is there any further discussion, gentlemen? This is an important matter. Often I have seen committees work to bring in resolutions and make recommendations, and somebody says, "Let's discharge them."

It is open for further discussion.

Dr. E. C. Baumgarten (Wayne): What is the Chair's ruling on Dr. Reveno's remarks? Is Dr. Chester's motion in order?

The Speaker: According to strict parliamentary procedure, I believe his motion is in order. There is a motion and there is an amendment. They are open for discussion, Dr. Chester's motion being that the report be placed on file and the committee discharged; Dr. Brucker's amendment deleting the words "that the committee be discharged."

Dr. Baumgarten: You have stated in your remarks "that the committee be discharged" at this particular time. The committee is automatically discharged, as Dr. Reveno says. If the report has been received this afternoon, we are not taking any definite action on the committee's report and the committee is discharged until a new committee is appointed, if any. That is a ruling I would like to hear from the Chair.

Dr. Phillip Riley (Jackson): Wasn't the report of this committee turned over to a reference committee this afternoon?

The Speaker: It was made a special order of business at a special meeting in Lansing to be taken up at this session, and that is why it needed immediate attention.

Dr. Riley: I mean the report Dr. Marshall gave this afternoon.

The Speaker: The delegates were given individual copies, and we are considering it now.

Dr. Corbus: Somehow I had the idea at the last meeting that we appointed a permanent Committee on Economics. Wasn't this to be a permanent Committee on Economics?

Dr. Insley: The question Dr. Corbus just brought up raises another question in my mind as to the wording of some of the resolutions at our July meeting. As I read part of this particular report, it seemed to me there was a deviation in the wording of some of the resolutions which were adopted in July. That also makes me wonder whether Dr. Corbus may not he in order as to the appointment or not of a permanent committee.

The Speaker: Do you wish to infer there is a difference between the resolutions as given verbally and the printed word?

Dr. Insley: There is a difference between that which appeared in the State JOURNAL and that which occurred in Lansing and that which was read today in the committee's report. I think there is a difference. I would like to have Dr. Corbus help me on that particular point.

The Speaker: Will you state where you find the difference?

Dr. Insley: I don't have the entire printed report in front of me. Offhand, the only particular instance I can give you that I recall from memory is that pertaining to subvention. The particular report read today does not agree with that adopted at the July meeting. In so far as there is that discrepancy, there might be some discrepancy in what Dr. Corbus has to say at the present time.

Dr. Corbus: My question, Mr. Speaker, at the moment is whether we did or did not appoint in place of the Survey Committee a new committee, a permanent Committee on Economics. I would ask the Secretary to read it.

The Speaker: The way the Chair remembers that is that this committee was discharged, and the Committee on Economics was appointed. That was not a permanent committee, but a committee was appointed.

Dr. Corbus: There was no qualification that they were to be discharged on the presentation of their report?

The Secretary: The resolution that was presented by Dr. Ekelund, in paragraph 2, says: "That a permanent committee of five on medical economics be appointed by the President, this committee to be instructed to study this report and any recommendations made by the Council and the House of Delegates, and to report at the annual meeting at two p. m., September 11, 1933."

Dr. Marshall's committee, therefore, is a permanent committee designated to report this afternoon as they have done, and there is where they end.

The Speaker: May I call your attention to a motion made by a delegate at that time, that the words "the President appoint" be deleted, and the words "the Speaker" be substituted. I appointed that committee.

If the printed word is correct, this committee is not automatically discharged after the presentation of their report.

Dr. H. A. Lucc (Wayne): I arise to a point of information. Is it possible for this House of Delegates to appoint a permanent committee? Is that a constitutional right?

The Speaker: Mr. Secretary, will you refer to the Constitution and By-laws?

Dr. Revcno: If I recall correctly, at the time the Ekelund resolution was introduced and passed at the special session on July 12, there was a provision in that resolution which specified that a Committee on Revision of By-laws be appointed for the particular purpose of making this change in the Constitution and By-laws, so that a permanent Committee on Economics shall be appointed. I think the record will bear me out in that regard.

The Speaker: Does that answer your question?

The Secretary: Permanent committees are created by the By-laws.

Dr. Lucc: On July 12 we had no authority or standing to appoint a permanent committee. Is the objection sustained?

The Speaker: It appears now that there wasn't any possibility of appointing a permanent committee, the way I interpret it.

Gentlemen, you have heard the motion of Dr. Chester and the amendment by Dr. Brucker. Is there any further discussion? We will take up the amendment first. The amendment is that the words "the committee be discharged" be deleted from the motion. Is there any discussion?

Dr. J. D. Brook (Kent): Inasmuch as it is not constitutional to appoint a permanent committee, is not this committee automatically discharged? If so, is Dr. Chester's motion in order? It falls by the wayside, does it not?

The Speaker: The Chair felt we might as well go through these formalities and have it over with. Still the motion of Dr. Chester is there to place it on file. Let's open the discussion on this $10,000 price.

The question was called for.

The Speaker: The question now is to place the report of this Committee on Economics on file.

We may go back and take the amendment first. It is entirely unnecessary; it is all in the air. The question is on the amendment as stated by Dr. Brucker of Ingham, to delete the words "the committee be discharged," from Dr. Chester's motion. All in favor of the amendment say "aye"; contrary, "no." The amendment is carried.

All those in favor of the amendment raise their right hands. (Fifty-one)

Those opposed raise their right hands. (Ten)

The question now is the motion as stated by Dr. Chester, that the report of this committee be placed on file. Is there any discussion?

Dr. Insley: May I ask a question as long as everybody is getting technical. This placing on file, in your particular interpretation, means the same as tabling it?

The Speaker: No.

The Secretary: It is merely a matter of record.

The Speaker: Is there any discussion on the motion, gentlemen? Do you understand the question?

Dr. Carl F. Snapp (Kent): I should like to ask for some further information on this particular question. If this is placed on file, does that necessarily mean that the work is finished, or will it go on? That is what we all want to know back here. The question is being raised whether or not the work of this committee, which has cost all this money, is to be filed away and then quit, or do we go ahead?

The Speaker: It is quit; it is done.

Dr. Snapp: If we are ever going to do anything, it seems to me this is the time to do it. Medicine has come to the point where something has to be done. Everybody is looking to the medical profession to do something. I think it would be a tragedy, after all we have done, to stop right here at this time.

Dr. E. D. Spalding (Wayne): May I rise for a point of information. If the report of the committee is placed on file, is it still open for discussion?

The Speaker: You are rescinding your action. We are discussing the motion now.

Dr. Spalding: I am asking for a ruling from the Chair as to whether, if this motion carries, the report of the committee is still open for discussion.

The Speaker: It is not, unless you rescind your action and reconsider it. If this is placed on file, that ends the discussion.

Dr. Spalding: I move that the motion be tabled.

Dr. F. T. Andrews (Kalamazoo): I support the motion.

The Speaker: It has been moved that the motion be tabled. Is there any discussion? All in favor of the motion say "aye"; opposed say "no." The motion is carried to table.

Now, gentlemen, the committee's report is still before you for your consideration.

Dr. L. V. Rogers (Kalamazoo): I would like to make a motion to take up this committee's report item by item and page by page. Go over it carefully, see what is recommended, and then vote on whether we will accept it or not.

The motion was regularly seconded.

The Speaker: You have heard the motion that we go over this report item by item and page by page. Is there any discussion?

All in favor of the motion say "aye"; opposed, "no."

The Chair will call for division of the House.

All in favor raise their right hands. (Nineteen) All opposed signify by the same sign. The motion is lost.

The report is still before you for consideration.

Dr. Baumgarten: It seems to me in going over this voluminous report the committee must have arrived at some very definite conclusions and recommendations. Couldn't they give us in very concise and definite form one, two, three, or four recommendations that they would like this House of Delegates to pass on? Then we could go through it in a hurry.

The Speaker: Dr. Marshall, can you answer the gentleman's question?

Dr. Marshall: I believe we have put that down as concisely as we possibly can. We have asked you to approve of a certain program of study. We have already boiled this down.

Dr. E. J. Foley (Alpena): I move that the committee be appointed for another year, the same personnel, and that the work be carried on, and that donations they receive for this work for next year be left to their discretion.

The motion was supported by several.

The Speaker: You have heard the motion by Dr. Foley, which has been supported by several members here. Is there any discussion?

Dr. W. C. Ellet (Berrien): I would like to ask if this committee is kept and the work is carried on, does that mean bringing into practice any of the principles which they have already stated, or does it mean that the committee is to continue the study? It strikes me that if the committee is to continue its study there must be some appropriation for such a study.

This report is extremely voluminous. There are several different principles brought out here, any one of which is pretty hard to decide on at one time, and on which each individual in this group has different ideas. A lot of this is new. I think the committee should be kept at work with instructions. In other words, I feel that the appropriation should be limited, and that any active practice of principle should be approved by the House of Delegates before it is put into effect. I would like to so move, sir.

The Speaker: There is a motion before the House.

Dr. Ellet: Then I would like to amend that motion, if I may, that funds that are appropriated meet the approval of the House of Delegates; that any principles brought out by this committee have the final approval of the House of Delegates, and that the committee be instructed to study and carry on their work.

The motion was regularly seconded.

Dr. Gariepy: I would like to place another amendment to this motion before it is given very much consideration, and that is we have to fix a definite sum now as to what we are going to spend. There is no need of our going on with this and find that we are going to spend another $10,000. I would like to place an amendment whereby we would be limited not to spend, not to exceed $500, and let them get the donations from somebody. We have to have something concrete. We might as well state now and have it definitely understood how much we are going to spend. I would like to place that as an amendment, not to exceed $500. The donations Dr. Marshall has already stated he could obtain would pay for the research work.

The Speaker: The $500 could come from the State Society?

Dr. Gariepy: The $500 could come from the State Society, but not any more.

Dr. Marshall: I cannot promise definitely. I said I thought we could get donations. These people may change their minds.

Dr. Gariepy: We can't spend $10,000 more, and there is no need of our going on if we can't do it right.

Dr. Ellet: I believe my amendment took care of any money to be appropriated, "that it meet the approval of the House of Delegates." If there is any extensive amount of money, it would have to be brought up. In other words, this committee could be allowed the amount of money to spend that any of the regular committees are allowed. Any unusual sum, they would have to come back for the approval of the House of Delegates.

Dr. Gariepy: May I ask the Chair whether the House of Delegates ever approved of the expenditure of $10,000.

The Speaker: I cannot answer your question, sir.

Dr. Corbus: May the Chairman of the Council, who is a sort of watchdog of the treasury, express his approval of the amendment made to limit the expenditure of the committee from the Society's funds during the next year to $500, definitely and positively, hoping that there will be other funds which will be acceptable to come from other sources.

The Speaker: In view of the statement of the Chairman of the Council, Dr. Ellet and Dr. Gariepy, do you wish to withdraw your amendments?

Dr. Ellet: I would like to leave my amendment in there because there are two other principles involved as well as the expenditure of money, and that is putting into practice

any principles this committee approves without the approval of the House of Delegates. In other words, they must have the approval of the House of Delegates before they are put into practice.

The Speaker: No one can put anything into practice until it comes to a vote.

Dr. Ellet: If we accept this committee's report as it stands, could it be put into practice?

Dr. A. E. Catherwood (Wayne): I would like to get some information on this whole affair. This report was made to the Council. The Council read the report and referred it to this Committee on Reports of Officers and Council. This committee is considering the same thing, and we expect to bring in a report tomorrow.

The Speaker: Dr. Catherwood, I may answer your question. At Lansing we made this a special order of business and according to orderly procedure it became a subject for immediate action. For that reason, this report was not referred to your committee.

Dr. Catherwood: This was embodied in the Council's report this afternoon.

The Speaker: You may make a report on it as it was reported to the Council, but Dr. Marshall's report was not referred to you.

Dr. Catherwood: It was referred to the Council and was given to the Council, wasn't it?

The Speaker: It was not. It was a special order of business for this afternoon, and as such demanded immediate consideration. It was not sent to any reference committee. If there is any phase of this report embodied in the Council's report, you may still bring it up tomorrow in your report.

Dr. Catherwood: This whole subject was definitely in the report of the Council, which was referred to my committee.

The Speaker: Then it is your privilege to bring it up tomorrow.

Dr. Catherwood: We have considered that one part of it for quite a while this afternoon, and of course we are here to get suggestions tonight. We expect to make a definite report on this particular subject tomorrow. Is all this procedure in order tonight?

The Speaker: It is in order in this way: In my assembly these things may come up, particularly with a complicated body which is so complicated in motions, studies, and everything else. I want to state definitely that this was a special order of business for this afternoon, and as such was not referred to the committee. However, it is your privilege, and I know the House of Delegates appreciate your industry in the matter, to bring any phase of the Council's renort up tomorrow and re-open the matter, Dr. Catherwood. That will be the Chair's ruling.

Dr. L. G. Christian (Ingham): If I understand correctly, this committee is a creature of the House of Delegates. This committee was merely to study this report further and report back, that is, study the subject and report back to the House of Delegates. No action on any of the principles can be taken by this committee to put anything into practice until they have thoroughly studied it, and digested it, and have brought it back to the House of Delegates. This committee is merely a survey committee and is not an administrative committee. I think that answers Dr. Ellet. We have no authority to go out and try to put anything across. All we have to do is to study it a little more, and come back and tell you what we think about it then.

The Speaker: Does that answer the question?

Dr. Ellet: That is the same thing as my amendment. That is practically the same thing, that the work of this committee be carried on, and that any principles before being put into practice obtain the approval of the House of Delegates.

This is just an aside. A good many of the members here are a little afraid that if we go ahead and approve this report, it may mean that certain things we do not individually approve will be put into practice. To make the problem all sure, my amendment was that the committee keep on with its study, and that any principles definitely meet the approval of the House of Delegates before being put into action.

The Speaker: Dr. Foley's motion is that the committee be continued for further study, and then you amended it by saying that they must bring it back before action. We cannot put anything into action. It must come before the House.

Dr. Corbus: I want to clear up the Council's report. In our report, we said if the House of Delegates approve the continuation of this study we would ask for the authority to get such funds as we could on a subscription basis, if you will, from outside sources; and ask authority to modify, if that is not possible, the expenses according to the funds that were available. I approve of the modification up to the point of $500.

The Speaker: Now the question is the motion, and the amendment by Dr. Gariepy. Would you re-state your amendment taking into consideration the withdrawal of Dr. Ellet's amendment?

Dr. Gariepy: My amendment was to approve of the activity and continuation of this committee, but that there be an expenditure of not to exceed $500 from the State Society for its work. In other words, we place a definite limit on how much money we are going to put in this, but they can put as much more as they want if they can get it from anybody. We are not going to put it in ourselves.

The Speaker: You have heard the amendment. Is there any discussion?

Dr. Luce: Does the word "approve" enter into that? You used the word "approve" in your statement.

Dr. Gariepy: The word "approve" was not used.

The Speaker: You have the amendment to Dr. Foley's motion in mind. Is there any discussion?

Dr. Insley: I think our next annual meeting is September, 1934. Between now and then there will have to be plenty of money if this study is to be continued. I am still somewhat in the dark. I hate to accept $1,000, $2,000, or $5,000 without knowing where it is coming from. I don't like to be under obligations. I would still like to have some sort of a lead as to where this money is coming from.

The Speaker: Gentlemen, I believe the integrity of men like Dr. Marshall and Dr. Corbus is such that nobody is going to chisel into them. I would like to have anybody answer Dr. Insley's question. That is the gentleman's privilege.

The question was called for.

The Speaker: You are now voting on Dr. Gariepy's amendment to Dr. Foley's motion. All in favor of the amendment as stated signify by saying "aye"; contrary, "no." The amendment is carried.

The motion as stated by Dr. Foley is that the committee be continued with the same personnel for further study. All in favor of the motion say "aye;" contrary, "no." The motion is carried.

Is there any other unfinished business?

Dr. Gariepy: Mr. Speaker and Delegates: For the past two years I have contacted probably as many doctors in the city of Detroit as anyone here in the hall, having been Chairman of the Membership Committee for the past two years, of Wayne County.

I have heard a lot of adverse criticism about the County Society and about the State Society. Altogether, I find we probably have 60 per cent enrollment in the State Society, which is not a healthy enrollment. We have about a 75 per cent enrollment in the Wayne County Medical Society. Gentlemen, this Society is not as healthy as it should be. Sixty per cent does not represent enough members in the state in order to get going the way we should get going.

The criticisms have come to me from men who don't belong to the organization, and who won't belong because of certain reasons too numerous to mention. But out of them all I have brought a resolution that I would like to have you consider, because I have heard it discussed pro and con and a few of them had enough backbone to get up and state it. I want to state it to you gentlemen, and have you consider and act upon it as you see fit.

RESOLUTION

Whereas the problems confronting organized Medicine have grown to be of such tremendous magnitude, and

Whereas it is altogether impossible for a man engaged in the practice of Medicine acting as Secretary of this Society to devote sufficient time to the duties of the office, and

Whereas it becomes increasingly necessary for the Secretary to devote a great part of his time in the Administration of a Legislative program

Be It Resolved that the By-laws and the Constitution of this Society be so amended that the Secretary of the Society shall be elected annually by the House of Delegates. His salary shall not exceed five hundred dollars a year.

Be It Further Resolved that the Constitution and By-laws be amended so that an Executive Secretary be appointed by the Council, this position to be filled by a layman with a legal training, who shall be responsible to the Council. The annual salary shall be fixed by the Council.

The Speaker: This resolution will be referred to the Committee on Society Affairs.

Does anyone in the assembly want to bring up any new business this evening?

A motion to adjourn is in order.

On motion regularly made and seconded, it was voted to adjourn at 9:15 o'clock.

Third Session

Tuesday Morning, September 12, 1933

The third session of the House of Delegates was called to order at 10:20 o'clock by the Speaker.

The Speaker: The assembly will come to order, please.

Mr. Secretary, will you give us the roll call?

The Secretary: I hold in my hand the signed roll call of fifty-three accredited delegates. I suggest that constitute the roll of the House for this session.

The Speaker: If there is no objection on the part of the assembly, this will constitute the roll call of the House.

The Speaker: The Michigan State Medical Society feels highly honored, and so does Grand Rapids, in having as a guest speaker this morning, a gentleman of national reputation, a man who understands the problem of the doctor in these times.

It gives me great pleasure to introduce to you, Reverend Father Alphonse Schwitalla, Dean of Medicine of St. Louis University. (Applause.)

ADDRESS

Reverend Father Alphonse Schwitalla

Mr. Chairman, Members of the House of Delegates of the Michigan State Medical Society, Ladies and Gentlemen: I cannot forbear, first of all, to thank you most cordially, sincerely, and heartily for the generosity of your invitation. These words are spoken not in a perfunctory manner, but with a keen appreciation of the difficulties to which I have exposed the officers of your association and the chairman of your program committee. I think I received seven letters, and I owe answers to seven of them. Not by reason of a choice of mine, but by reason of a group of circumstances, I kept on putting off answers to see whether I could make this engagement.

Mr. Chairman, I also want to thank you for the cordiality of your introduction.

A word should be said, also, in commendation of the splendid efforts made by your Medical Society in facing the national problems that are confronting medicine, and also in facing your own state problems. The work you have undertaken in making a survey yourselves, and not through others, I think deserves the highest commendation. You have given an example to the country as a whole, to the state medical societies of the United States in the approach they should make to the solution of the problems confronting medicine.

I am sure all of you realize, as you cannot help but realize, the pressure that is being brought to bear upon the medical societies. From the educational field, from the field of social work, from the field of laboratory technology, from the field of x-ray technology, and from ever so many other angles, there are being brought to bear upon the medical profession such stresses that it is amazing that not more misunderstanding has been created within the ranks of the physicians themselves. I am sure if the physicians were not keenly alive to the responsibilities they, themselves, are carrying, and if they were not so sure of their fundamental beliefs and their fundamental principles, long before this the inroads that would have been made upon the solidarity of medical thinking in this country would have resulted in very serious consequences.

I just came from a three-day conference of hospital executives, and it is amazing to see how the medical man can be pushed into the background. It is amazing to see how hospital executives can talk about hospitals and forget the primary purpose of a hospital, which is the taking care of the sick, and I view with the most serious alarm the development of the hospital without reference to the medical man.

I see on all sides fees discussed on the mathematics, the finances, the statistics of the hospital, but a consideration of the doctor's place in the hospital belongs to ancient history. If I, therefore, stop for a few moments and discuss this relationship, gentlemen, I am doing so aware of the fact that someone must be for the doctor's place in the hospital.

I am not opposed—of course not; I could not possibly be—to the development of a high type of hospital executive; nor am I opposed to the closest possible organization in the hospital, whatever that word might mean; nor am I opposed to a very careful delimitation of function and a division of labor in the hospital. But all of this must center in the medical man, and unless this centers in the medical man I am convinced that a hospital is going to fail to carry out its fundamental purpose.

I was amazed, the other day, in hearing it questioned as to the advisability of having a medical man on the board of trustees or on the executive board of hospitals. When I approached one of these gentlemen, who told me he had upon his board nothing but laymen, and boasted of it, and who told the whole meeting he was having the ideal board and the ideal committee and that there wasn't a single medical man upon it and, therefore, it was successful, I assure you it was a new thought to me. I asked him afterward, "Why do you oppose medical men upon such a board?"

He said, "Because they cannot get down to business."

Gentlemen, there is the fundamental thought I would like to stress. I hope the medical man does not get down to business. I hope the medical man does not step off his pedestal, upon which centuries have placed him, and, if you will, mingle with those of an entirely different viewpoint in the conduct of life.

This is not contrary to commerce and finance. It is not contrary to trade. I am not, in any way, besmirching those legitimate activities of the human mind without which we could not exist. But it is one thing to be a business man, and it is a different thing to be a doctor. A man might be a good business man as a doctor, or he might be a doctor as a business man, but the two things cannot go together in their fundamental and primary aspects. For medicine, business is an adjunct. Business is ancillary. Business cannot be the controlling interest in the work which the medical man does if he is to do it properly.

Gentlemen, those are the theses that could be proved at great, great length, and it would require a great deal of argumentation in a non-medical group to convince your hearers that those statements have foundation in fact. In this group it is unnecessary. You gentlemen understand the difference between a profession and a trade. You understand the difference between a profession and marketing, advertising, solicitation, and the collection of bills. You understand the difference between the treating of a patient, and attracting patients to your offices. All of those things are matters of daily occurrence and daily experience in your lives, and I need not stop to prove that one of those things is not the other.

It is one thing to solve the problem of a patient while you stand at the bedside of that patient; it is one thing to take laboratory reports and translate them into your clinical findings on that patient; it is one thing to take your clinical reports from the various laboratories of the hospital and translate them into terms of temperature, into terms of percussion results, and all the other things you do in your physical examinations. It is an entirely different thing to put yourself into competition with your brother physicians, and to advertise in newspapers by legitimate or illegitimate methods. It is a different thing altogether to divide your responsibility for

that patient among five, six, or ten physicians and then say you are practicing medicine.

Gentlemen, the trends of the times, as focused again and as crystallized in the report of the Committee on the Costs of Medical Care, I believe, are away from a sane and a sound practice of medicine. The trend of the time is toward the socialization of medicine, and especially toward the mechanization of medicine. I could stand, to a certain extent, gentlemen, in my own thinking about the medical men and in the principles I try to inculcate into the students in the School of Medicine at St. Louis University, for a great deal of socialization in medicine, but I cannot subscribe as a thinking and as a conscientious man to the mechanization of medicine. (Applause.) And in so far as the report of the Committee on the Costs of Medical Care has gone beyond even a reasonable socialization of medicine and has tended toward the mechanization of medicine, I must condemn the majority report. (Applause.)

It is for this reason, gentlemen, that I found it necessary to be true to my own convictions in this matter and sign the minority report with those practicing physicians who have been in the field for years and years, and who have learned to understand medicine, not from without, but from within. It is only the man who has lived his life in medicine, and who has faced all of those experiences out of which the cub doctor, after his graduation, becomes the revered leader in his community; it is only that man, I believe, who finally has the right to say the last word on what medical practice should be.

Gentlemen, these points again, as I said, need elucidation. Let me select a few of these for consideration. The majority report says as follows about the personal relations of patient and physician:

"The preservation of a personal relation between patient and physician is an essential element in safeguarding the quality of medical practice."

We are all agreed, and we say "aye" to that statement.

"This relation, as the committee defines it, includes not only the privileged, confidential communications of patient to physician which are recognized as inviolate by law, but also the relation involved in the communication of his medical history to any physician chosen by the patient, and the continuing mutual responsibility between patient and physician."

Thus far we all agree.

"This in no way inhibits the patient from giving his confidence to different physicians, or to the medical integrator of a group of physicians."

Gentlemen, as far as the words go, I agree; as far as the tenor goes and the meaning and the spirit go, I absolutely deny that statement.

"The business relation between physician and patient is not considered a necessary part of the personal relation as defined above, nor does the definition carry a commitment for or against any scheme of organization in medicine."

Again, members of the House of Delegates, that statement I would emphatically deny. Not only that, but I say the majority has contradicted itself in writing that statement, because in other sections of this very book of their report they stress the thought that one of the functions of the medical social worker is to supply to the physician that information about the social and financial status of the patient in his community which will enable the physician to treat that patient with reference to those difficulties that grow out of that social and financial condition of the patient.

Here it is said that the financial condition of the patient forms no essential part of the relationship between patient and physician. It does form an essential part of the relationship between patient and physician. To my way of thinking, the business relation between the physician and patient must be considered a necessary part of the personal relationship.

Gentlemen, in that section, the business relationships of the patient to the physician are ruled out of that personal relationship that you and I, in the past, have been accustomed to hold as one of the most sacred traditions in our civilization.

Let's read a little farther in that section.

"There is nothing in any way mysterious in the relation between a physician and his patient."

So the majority says.

"On the therapeutic side, it is capable of completely objective analysis. As to those phrases which are not strictly medical, it is of a piece with all satisfactory human relations involving as they do, patience, sympathy, understanding and confidence."

Gentlemen, analyze those two statements and put them in juxtaposition. According to this section of the majority report, the business relation between patient and physician is not a part of the personal relationship. The therapeutic phases are "capable of completely objective analysis." There are left only "those phases which are not strictly medical," which are "of a piece with all satisfactory human relations involving . . . . patience, sympathy, understanding and confidence."

Now, gentlemen, if you, in your relation to the patient, are entering into a relationship that is of a business character, of a therapeutic character, and of a human character, the human is not distinctive from the physician, but is the same kind of relationship, according to this report, that you enter into with anyone else. The business relationship does not enter into that picture at all. The therapeutic relationship is susceptible of completely objective analysis, assuming, therefore, that there is nothing mysterious about it. Of course, the word "mysterious" was properly chosen, because the implication was to be left in the mind of the reader that we must not look for something esoteric here, that we must not look for something very recondite, for something decidedly below the surface. And yet, gentlemen, is there a physician among you who has gone about among his patients who has not felt the reverence in which the patient held you? Is there one among you who has not appreciated to the full the intimacy of that personal contact between yourself and your patient which has meant more to you than life?

You did not go into medicine in order to become a wealthy man; you did not go into medicine in order to be a captain of industry. You went into medicine by reason of that internal drive which made you feel that you had something to do for humanity, and no matter at what cost it would be done, and it is only in doing that work that you could get the satisfaction in life that you craved for.

Why, I ask you gentlemen, do the men in our universities teach at a salary that we know is in no sense commensurate with their minds or with their achievements? Why do you find a man who makes a great discovery foregoing the privilege of sending that to the patent office and capitalizing upon it? Yet he spreads it out among his confreres for the good of humanity, we say; for the good of those who will be benefited by his discovery.

Why is there no idealism left in the world? You are not in the game for business purposes, and yet here we are told that all of this is susceptible of completely objective analysis. If by diagnosis of a case you mean the report from the biochemical laboratory, the report from the pathological laboratory, the report from the x-ray laboratory; if that is diagnosis, then I say on the therapeutic side the relation between patient and physician is susceptible

of completely objective analysis. But if diagnosis means the ability to drag together a hundred facts, to see the relationship of those facts one to the other, to see the antagonism of and synergistic relationship in those facts, to be able to put those things together into one composite picture by means of your creative imagination which has just as great a capacity as the creative imagination of the poet who writes his poem or of the scientist who sees in some little fact a wider significance of a world law, then I say that kind of therapeutics, that kind of diagnosis is not susceptible of completely objective analysis, because it implies the use of a medical judgment which cannot be taught, a medical judgment which must be developed, which must grow out of the individual's own development, out of his own consciousness, and that is not susceptible of completely objective analysis.

You cannot, gentlemen, weigh what is meant by poetic insight and poetic talent. You cannot measure it. There are intangibles in life despite our efforts at completely objectively analyzing them, and the work of the medical man when confronted with a patient is one of those intangibles in life, and that relationship I do not believe will ever be completely analyzed.

You can measure the distance from here to Chicago, gentlemen, if necessary, down to a tenth of an inch from any special place here, any particular place here to any particular place in Chicago. You can also measure and weigh a freight car. But, gentlemen, I dare you to measure the distance from here to the end of the rainbow, and I still have illusions enough in life to believe that somewhere there is the end of a rainbow, and if I do not find there a pot of gold, I find at the end of the rainbow something that satisfies me and makes me feel that my life is worth living.

I want to strive; not strive in terms of so many dimes, or so many pounds of foot energy, or so much horsepower expended. I want to study the patient, not merely because he has a temperature that I can measure down to the second decimal place. I want to study the patient not in terms of only so many cells that I find in the spinal fluid, but I want to study the patient as a human being. It is only by studying him as a human being that I find I am living up to my capacities as a medical man, and that is the only attitude we can take toward it, I believe.

The minority writes upon the same subject as follows:

"By personal relationship is meant that bond of sympathy and interest in the patient's welfare on the part of the physician, confidence in the ability, integrity, and discretion of the physician."

Confidence! Try to measure confidence, ladies and gentlemen, and members of the House of Delegates. Try to measure integrity. Try to measure or completely analyze discretion on the part of the physician, that mutual regard on the part of each for the other which caused the patient to disclose for the purpose of diagnosis and treatment the most private and confidential information concerning himself and his surroundings when necessary for proper diagnosis and treatment.

"The character and personality of the physician." Try to analyze that objectively, please.

"The character and personality of the physician is a major factor in its development, and in process of time and continued contact as patient and physician a friendship and intimacy develop that assumes priestly character on the part of the physician; the characteristics of the confidant and adviser in the most intimate, personal and family relationships. All phases of personal and family life are, at times, closely related to diagnosis and care of an individual's condition. And economic and financial conditions are often as important in diagnosis and care as physical and mental abnormalities. It is an individual relationship, the product of character and personality, and cannot be transferred to a group or fostered by group practice."

Of the two analyses of the personal relationship, ladies and gentlemen and members of the House of Delegates, I subscribe to the second one. (Applause.)

Another phase of this business relationship, gentlemen, that is so strongly urged by the majority report is organization. We are all subscribing to organization today. All of us, in so far as we possibly can, have strengthened the hands of our President in the support of his national policies. We are allowing ourselves to be organized. We are allowing ourselves to fall into certain definite places in the national policies. Industries have taken the position that they must march on with the nation, and every time we allow ourselves to be organized we are relinquishing (let's remember that) to a certain extent some of that personal freedom that belongs to me as an individual, and which I have been taught to regard as an inalienable right. And yet we do it.

When we live in a city where there are stop signals we are forced to give up some of our personal liberty to dash along the road at any speed we please without reference to anyone else. As President Wilson, in his splendid book on "The New Freedom," in the last chapter, has so splendidly said:

"It is not the piece of machinery that insists upon its own rights that works best for the whole, but it is the piece of machinery that integrates itself completely with all the rest of the machine."

So, gentlemen, for the sake of keeping the nation going, we want to keep step; we want to fall into line. I want to be a good gear in the whole general machine. I want to be a wheel that turns freely, and the only way I can turn freely in the nation is by allowing myself to fit in with the other wheels of this complex mechanism that I call the American nation today.

But, gentlemen, can you organize your relationship to your wife? Can you organize your relationship toward your children? Are you going to say to yourself, "I am going to allow myself to spend three atoms of energy in giving this child of mine a fond kiss when I come home from my office?" There are certain things that organization cannot touch.

Again, let's go back to the intangibles in life. Those are things we must constantly stress, because we are so impressed with columns of figures, with black on one side and red on the other; we are so impressed with the magnitude of our huge machines that they over-power us, and we forget that sometimes the most over-powering things in life are not the things that your eyes see or your ears hear or your hands touch, but they are the things that in some way or another approach us from some unknown region. Fear, ambition, pride, respect for public opinion are greater driving forces than all the energy of Niagara.

Gentlemen, you cannot organize beyond a certain point. The President can make me fall into a certain place in his NRA program, but he cannot command the internal loyalty which may make me fit into that program wholeheartedly. I need not labor that point here with you.

Try to organize this sort of a thing. What have they done with our organization? The group clinic has come along. Mind you, gentlemen, I am fully aware of the fact that there are group clinics and group clinics. Please do not misunderstand what I am trying to say here. I am not essentially opposing the concept of coöperation in medicine, but coöperation is one thing and superorganization is another.

In the group clinics in ever so many places, this

individual has been designated the otolaryngologist in order to have a good, long title. This person has been designated a psychiatrist, and this person has been designated a diagnostician, and so on all down the line. What reason have they for claiming those titles? I know, and can prove the statement without any difficulty whatever, that in every so many cases have been given those titles without any reference whatsoever to a basic training which will fit them to carry those titles. Gentlemen, in the name not only of the medical profession, but in the name of public welfare, I must protest against the conferring of long sounding titles in an organization merely because that organization needs someone who has that title. (Applause.)

Gentlemen, it is time for us as medical men to turn to a correct concept of specialization. You have had to face this problem many and many a time in your work. You know, yourself, you cannot send your patient for reference and consultation to everyone who puts up an ear, nose and throat sign on his window. You know you cannot send her to everyone who claims to be a gynecologist. You must be selective; you must be careful; you must learn how to evaluate. And even though (let's again be outspoken) we have national examining boards in ophthalmology and otolaryngology, and we now will probably get them in urology and also in surgery; even though we have the American College of Surgeons and the American College of Physicians, those organizations striving as they are today to raise the standards of specialists, all those organizations taken together cannot overcome another intangible in life that has done a tremendous amount of damage, the damage that comes from human greed and human self-aggrandizement.

You cannot cure men; you cannot reform men from outside. External justification holds no more in medicine than it holds in theology. Merely to put on the vesture of righteousness is not to be righteous. Merely to wear the garb of a nun, or a priest, who buttons his collar in the back, does not make a good man.

Those are things, ladies and gentlemen, that I am sure are true. Why are we not translating this into the practice of medicine in specialization? That has a place in medicine, and let us all hope (and of course we are hoping) that a more and more progressive specialization will take place in the future. We are all anxious that we can give to the nation a better and a sounder care, and we know that for that better and sounder care specialization is necessary. But, gentlemen, where should that specialization come from?

It should come from within the medical profession, and if it comes from anywhere except from within the medical profession it is a pseudo-specialization that is just as damnable as any other pseudo thing in life, pseudo science, pseudo religion, or pseudo literature. They are all to be condemned because they carry upon their own foreheads the brand of their own falsity and their own lying character.

Gentlemen, here is what I mean. If we go back to the fundamental principles of biology we have a splendid analogy. The human organism, any organism, develops not by reason of external pressures. You can put that organism into all kinds of environments. There is internal resistance to the environment in that organism which enables that organism to utilize the environment to the fullest extent, but never to be so completely adapted to that environment as to lose its identity. Do you realize that you can kill yourself by over-adaptation just as you can kill yourself by failing to adapt to an environment?

Now that organism develops from within, outward. Its various organs appear at certain times as demanded by the normal, regular processes of development, the laws of embryogeny.

All of those things are clear, and yet in medicine all of a sudden we create a specialty because we need that specialty in order to organize. That is the thing I am deprecating.

Gentlemen, I want to stress one thing. We so often make a mistake in assuming that a division of labor is the process of development. They are two different things. Sometimes a division of labor results from the process of development. At other times, the process of development outruns the organism's needs and thereby creates a new organ which of itself assumes a new function. But we must not make the mistake that just because we divide labor, therefore, we have progressed; therefore, we have developed. That is a mistake that is altogether too often made even in our national legislation, because we are still laboring under the misconception that we can legislate people into doing certain things, when we know, on the basis of our recent national noble experiment, for example, that that kind of thing is not possible.

In this process of organization it is essential to remember that we are creating relationships that we cannot carry; and, secondly, we are distributing privileges which it is not our right to distribute.

In that relationship there are privileges and obligations that are clear between physician and patient, privileges on the part of the physician in relation to the patient, and of the patient with regard to the physician, just as there are obligations on the part of the physician to the patient, and on the part of the patient to the physician.

Historically speaking, the nurse has come along. The nurse has interposed herself in that relationship between physician and patient. All of a sudden there have grown up new relationships and new privileges of patient to nurse and nurse to physician, physician to nurse and nurse to patient, new privileges and new obligations.

That was not enough. The hospital came in. It had to. The hospital now had interposed itself, on the one hand, between the patient and the nurse and, on the other hand, between the nurse and the physician. So that now we have relationships of this kind: Patient to hospital, hospital to nurse, nurse to hospital, hospital to physician.

What else has come in? In the last ten years you have seen them grow, haven't you? Somewhere in that picture you try to squeeze in ever so many other people, and they didn't even know where to dovetail themselves into the whole story.

You have the dietician now who claims she has a right to be consulted by the physician, not merely as a consultant; no, but as an equal. She advises with the physician; she is to be called into consultation.

The x-ray technologist has a right to be consulted. I don't mean the physician x-ray diagnostician. I am talking about the x-ray laboratory technician who wants to be consulted and wants her little word to say in the diagnosis of that patient. Laboratory personnel of all kinds, the biochemist and the blood expert must all be consulted, and of course all the rest of them. Running through this, like a motif in a terrible orchestra, you have of course the medical social worker who must be able to interpret all these things one to the other. (Applause.)

With regard to that last remark, gentlemen, I want you to feel that I believe the medical social worker has a very distinct place in the practice of medicine. Know what that place is, I have publicly said again and again in groups of public social service workers, but I am sure it need not be repeated here. But there is a menace in their work, and there is a great helpfulness to the physician.

We medical men must, in some way or other, try to lead that profession also, not by force, but gently by an understanding of what they are trying to do. They are trying to do a wonderful thing for the medical man. The medical man must learn what that thing is. It is not obvious, I am frank to say, but there is something that is thoroughly worth while.

Let me go back to the trend of my argument. At one time we started out, gentlemen, by a very simple bilateral contract between the patient and the physician. That was easy to organize; you gave the patient something, and the patient gave you something. On the one hand, there was, it is true, a certain number of intangibles for which the patient paid you, not wages, no; not a stipend, but he gave you an honorarium. Go back into medical literature and you will find it is always called an honorarium. There is all the difference in the world between wages, a stipend, and an honorarium. The very origin of the word "wages" means something for services rendered. A stipend, in the Latin word, is something that you give a stipendium, something you give with relation to something, which is not exactly the same concept as wages, but with relation to services rendered comes a step forward. The honorarium is the thing you medical men receive. Don't prostitue your attitudes by demanding wages all of a sudden, whether you demand it from the county or the state or from a social service agency or from the owner of a group clinic doesn't make any difference whatever.

If you are drawing wages, and if you allow yourselves to come down to the condition of a man who gets his yellow pay envelope week after week for services rendered; if that is all the valuation you have put upon those services, then, gentlemen, you have fallen short of your estate and you have forgotten what you are here for. (Applause.)

Now, by those frequent interpositions of new entities, the hospital, the nurse, and so on, in that relationship between patient and physician, all of a sudden in place of having a simple bilateral contract we have a whole lot of multi-lateral contracts. In multi-lateral contracts it is very easy to lose sight of mutual obligations and to lose sight of mutual responsibilities.

Gentlemen, let me digress just a moment. In law, one of the safest refuges for the person who is not honest is a multi-lateral contract. He knows that a multi-lateral contract gives him all kinds of wood piles behind which the colored man can hide. All he has to do is to pile contracts upon contracts, and there are ever so many avenues for wiggling out between them. He wiggles and wiggles and wiggles until he is clear on the other side. Medical men, doctors, are you going to descend to that kind of relationship? Are you going to allow yourselves to be organized to the extent of having contracts on all sides of you and just swim around in a sea of contracts?

That is exactly what you are going to do if you are going to allow this process of organization to progress without keeping clear in the minds of those who are writing those contracts that you are a medical man and that you regard yourself in a sacred relationship to your patient. Anything that disturbs that sacred relationship, I plead with you to get along without. And any other relationship that you enter into must have its meaning and its significance from that fundamental, basic fact.

As a corollary to all this, gentlemen, I should like to say just a brief word about a third point I hoped I might develop at greater length. I am talking about the revival, the rejuvenescence or, if you must have it, the resuscitation of the private practitioner. He has a certain number of rights, the poor fellow! He is not entirely dead.

At this hospital meeting I just came from they were complaining that certain doctors dared to use the operating room in that hospital without having been specifically invited. I know that in large medical centers and in certain types of hospitals that are organized for certain specific purposes (it takes too long to mention them all here) there should be a restriction of practice in those hospitals. But the hospital that man was talking of was a hospital out on the edge of the prairie in a province of Canada, 500 miles north of Winnipeg, and he was complaining that a medical man dared to set a fracture. He wanted that fracture case sent down to the University Hospital, 500 miles away, because the medical man should not set fractures.

Isn't that going a little bit afield from our concept of the practice of medicine? Hasn't the practitioner a real contribution to make to the practice of medicine? Isn't the practitioner in many respects the ideal doctor? I should rather visualize the specialist as an adjunct to the practitioner, than to regard the practitioner as of a lower order of organism in the medical world. (Applause.)

Gentlemen, I have touced upon three ideas in this little story of mine. Am I a reactionary in urging these thoughts? I am not opposing reasonable development. I am not opposing a yielding on the part of medicine to those stresses that are arising in the social world today, and I am not opposing a fitting into the general picture.

We are thinking socially today. We are becoming more and more aware of each other in the processes that are going on. It is one thing to yield to the point of self-extinction, and it is quite a different thing to yield coöperatively and actively. The leadership must remain in the medical profession if you are to safeguard medicine as it has been in the past, and as I hope it will be in the future. (Applause.) The leadership must stay in your medical societies. The leadership must stay in the state society and in the national organization. Without that, I think medicine is doomed, and in place of having medicine you will have medical sociology and medical economics. Take your choice.

The audience arose and applauded.

Dr. C. T. Ekelund (Oakland): For this thought-provoking and inspiring address, and for the special effort which Father Schwitalla has made to come here today to make this address, I move that due note be made in the proceedings of this Society of our appreciation and thanks.

The motion was severally seconded.

The Speaker: You have heard the motion. All in favor of the motion say "aye." The motion is carried.

At this point I wish to say, Father Schwitalla, you have a mixed audience here, from the good Sisters and high school girls to doctors of medicine, and the attention they have given you I hoped in part would be your reward.

I wish to call on Dr. J. Milton Robb, President of the Michigan State Medical Society.

President Robb: Mr. Chairman and Father Schwitalla: It is an abiding privilege to hear such a worthy man as Father Schwitalla. I did strive and, as he stated, I got no answer to my letters, but I knew in time I would win because my cause was right. I knew he knew his subject, and even though he didn't know about the Civic Auditorium in Grand Rapids, I knew he would soon learn about it, because Grand Rapids is a good advertising place.

It is very interesting, as you view the problems of medicine (and we must get them from all sides if we are to properly proceed in the future of medicine), that on one side we have the mechanics, we have the statistics, and on the other side we have

what Father Schwitalla represents, which is a most essential factor, and that is the religious side.

In the development of the doctor, primarily, the doctor was the priest and the doctor in one, or the doctor and the priest in one. Ladies and gentlement, that division, that sentiment, that emotion that started them never will be entirely separated. The man who actually practices medicine and is sincere gives to his patient the intangibles that Father Schwitalla was talking of. There is no one who has practiced medicine any length of time who cannot see the very many different factors presenting that have been mentioned. We have to be careful that we do not so thoroughly organize that we have forgotten the really important individual, who is the patient.

There is a sacredness, and there is a seriousness to medicine that only the religious side can give, and I have been extremely anxious, for this process of getting Father Schwitalla here wasn't as easy as it might seem. I knew his views; I knew he was convinced that perhaps some of the trends and tendencies of the times were not the correct ones. I have felt that way at times myself. I knew all contacts the physician makes must be established, and I knew of no one who I felt could do it better than he. I am convinced, and I am sure you were as I watched you, that that is true.

It seems to me that the faith and being of our people depends less upon external factors than that we remain true to our moral traditions which have carried us through the centuries despite the storms that have broken in upon us. In the service of life, and particularly at this time, sacrifice becomes a grace. (Applause.)

The Speaker: The Chair is happy to announce that we have another treat in store. Father Schwitalla has just advised me that Dr. Neilson, Past President of the Missouri State Medical Association, and Associate Dean of the St. Louis University, is in the audience. We would like to hear from Dr. Neilson. (Applause.)

Dr. C. H. Neilson: I am very happy to be in Michigan, and very happy to be at the State Medical Society of Michigan. I just came from a medical association meeting in Winnipeg in the Province of Manitoba. The same problems were discussed in that association as are being discussed here today. The same ideas were expressed there that Father Schwitalla has expressed here today, although clothed, perhaps, in Canadian language, and not so virile and strong as Father Schwitalla has given.

I hardly know what I could say this morning that would be interesting to you, but I was thinking about some of the intangibles of medicine that we have to come in contact with as practitioners of medicine.

In taking a history, we were taught in school that we must take a history of the patient along the following lines: "Have you had the measles? Have you had whooping cough? Have you had typhoid fever? Have you had this, and have you had that? Those things probably have very little to do with the present illness of the patient, yet we teach it today. Down at our University, and in all universities they teach those things yet, and I presume it is proper to teach those things.

There are other things in the history that ought to be attended to, particularly in these days when a man comes into my office and says, "Doctor, if I don't get some help in the next two months I am going to lose $375,000." He sits there and weeps like a baby. That is an intangible thing, although real.

Another patient comes in and says, "Doctor, I can't get along with my husband." That is another intangible, but it is sometimes real. (Laughter.)

There is a strife in the minds of many people between the real conditions under which they live and the ideal conditions under which they must live, and that strife between the real and the ideal in their minds makes them emotionally unstable.

Gentlemen, I plead this morning that in taking your histories you go back a little bit, not into the diseases these people have had but go into the conditions under which they live and work and play. That is an intangible, and is hard to evaluate.

I defy any of you gentlemen here to give a definition of pain that will stand. You can get one sort of definition from the psychologist. You can get a definition from this one and that one, and yet some of you gentlemen are practicing medicine and making diagnoses by a study of pain, and some of you perhaps have never suffered physical pain. How can you evaluate it? I maintain that is another intangible.

What is pain? Discomfort is one phase. Actual acute pain is another, and yet these people who come suffering from the emotional things of life, the strife between the real and the ideal, are suffering pain. They are suffering discomfort; they are unhappy.

Pavlov proved years ago that the emotions had a lot to do with the movements and secretions of the stomach. Anger, joy, and sorrow will change the peristalsis of the stomach and intestines.

So I beg of you this morning not to forget. I am not a psychiatrist, nor a neurologist. I am a plain internist, which is a sort of glorified general practitioner. (Laughter.) I would like to see the doctor who practices medicine who can keep away from psychiatry, who can keep away from the emotional side of medicine. Let's not forget that in all our science and in all our organization there is something besides cells and bones and muscles and hearts.

We used to make pretty fair diagnoses of heart trouble without the electrocardiogram. We used to make pretty fair diagnoses without the x-ray. Some of the ideas have changed. We used to think we had a lot of gastric ulcers when they were duodenal ulcers. The x-ray helped us that much. With all the blood chemistry, blood sugar, creatin, creatinin, calcium, and so forth, we have not advanced ten per cent in the treatment of nephritis since I was a student in Chicago. Our treatment is about the same. We have learned a little about diet. We have learned something about proteins. So, are we progressing? How scientific are we?

Sometimes in our science we forget that there is a human being at stake who has emotions and hopes and fears and joys.

I must stop here. I have taken too much time. (Applause.)

The Speaker: The next order of business is the report of the Committee on Council and Officers, Dr. Catherwood.

Dr. Catherwood read the report of the committee through the first resolution.

REPORT OF COMMITTEE ON COUNCIL AND OFFICERS

The address of your Speaker, President and President-elect have been studied by your Committee and show a great deal of earnest thought and contain many valuable suggestions. Your President stressed four points, namely:

1. A public relations program
2. A legislative program
3. A continuation of the study of the medical economics problem
4. An enlargement of the post-graduate program

Your President-elect gave valuable advice on preventive medicine and periodical health examinations, also some excellent points on county society activities.

These addresses should be carefully studied by each individual when published in your JOURNAL.

REPORT OF THE COUNCIL

Your Committee agrees with the Council that the Upper Peninsula is too large and distances too great to be properly represented by one member in that body, therefore,

Be It Resolved, that the Council be authorized to divide the 12th District into two councilor districts.

DUES

The by-laws provide that a member whose dues are in arrears on April 1 of the current year be suspended, the Journal discontinued, and legal protection terminated.

Your Council, recognizing the financial difficulties confronting so many members, has extended the period from April 1 to October 1.

By action of the Council some two years ago members are permitted to pay their dues by note. Relatively few have paid these notes, therefore,

Be It Resolved, thaat this House of Delegates concur in the extension of time from April 1 to October 1 and that this society accept notes for this year's dues, providing the member is not in arrears previous to the current year.

Your Committee approves of the recommendations of the Council concerning the active *support* of *advertisers* in your Journal.

Your Committee recommends that some means be taken to stimulate interest in, increase the number and scope of post-graduate meetings throughout the state.

LEGISLATIVE PROGRAM

Your Committee feels that the program for county political organization should begin immediately so that the legislators may be properly selected and instructed that what the medical profession asks is for the benefit of all the people. Apparently if we are to succeed in our Legislative Program we must get into so-called "petty politics." The end would justify the means.

ANNUAL MEETING

Your Committee has given serious consideration to the invitation to hold our next annual meeting in Traverse City, Mackinac Island, Sault Ste. Marie and Battle Creek. We feel that for the assurance of a large attendance, necessity for conserving financial resources both for rental of auditoriums and electrical wiring, that Battle Creek be selected, therefore,

Be It Resolved, that the House of Delegates designate Battle Creek as our meeting place for 1934.

STATE SURVEY

Your Committee commends the Council on their careful and judicious expenditure of funds for the state survey and suggests no new expenditures or obligations be incurred during this period of financial distress.

Be It Resolved, that this society *shall not solicit nor accept* funds from any foundation or other agency outside the state for the continuation of the study by the Committee on Economics.

Dr. Catherwood: I move the adoption of this resolution.

The motion was regularly seconded.

The Speaker: Gentlemen, is there any discussion on the division of the upper peninsula, the Twelfth Councilor District, into two districts?

All in favor of the motion say "aye;" contrary say "no." The motion is carried.

Dr. Catherwood read the second resolution in the committee's report beginning with the words, "The By-laws provides that a member whose dues," and so forth.

Dr. Catherwood: I move the adoption of this resolution.

The motion was regularly seconded.

The Speaker: You have heard the motion, gentlemen. Is there any discussion?

Dr. E. C. Baumgarten (Wayne): Is there anything in that resolution of Dr. Catherwood's in regard to delinquent notes? It seems to me the Council made some recommendation.

Dr. Catherwood: According to the By-laws, those are automatically dropped.

The Speaker: Is there any further discussion? All in favor of the motion say "aye;" contrary, say "no." The motion is carried.

Dr. Catherwood continued the reading of his report beginning with the words, "Your Committee recommends that some means," and so forth, down to "Your Committee feels that the program," and so forth.

Dr. Catherwood: I move the adoption of these recommendations.

Dr. Wm. J. Stapleton, Jr. (Wayne): I second the motion.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye;" contrary, "no." The motion is carried.

Dr. Catherwood continued the reading of his report, beginning with the words, "Your Committee feels that the program," and so forth, down to "Your Committee commends the Council," and so forth.

The Speaker: This, in the order of business, will come up this evening in our regular order as to meeting place.

Dr. Catherwood continued the reading of his report, beginning with the words, "Your Committee commends the Council," and so forth.

Dr. Catherwood: I move the adoption of this resolution.

The motion was regularly seconded.

The Speaker: It is open for discussion.

Dr. W. C. Ellet (Berrien): Does this mean no funds will be accepted at all without consideration? It seems to me if this is adopted it rather leaves out any possibility of accepting something that might do the Society some good. I think that is quite a blanket resolution.

Dr. Catherwood: The resolution was intended to cover exactly the points that are stated.

Dr. E. D. Spalding (Wayne): May I ask that the resolution be re-read?

Dr. Catherwood re-read the resolution.

Dr. E. L. Foley (Alpena): I think this is foolish, myself. It strikes me that way. If we haven't money enough ourselves to carry on this work, why should we shut ourselves off and keep this work from being carried on when we could get aid from outside?

The Speaker: This is an important question, gentlemen. It is open for discussion. Express your views.

Dr. G. H. Wood (Northern Michigan): I rise to a point of information. I would like to ask just what is the idea in limiting this outside of the state. If the House of Delegates should approve the source of money, why not inside the state as well as outside?

The Speaker: Is there anyone in the assembly who can give the geutleman the information?

Dr. C. S. Gorsline (Calhoun): Mr. Speaker, I am not speaking as a member of the committee, but merely as a delegate on this floor.

In the two years' work the committee has done, a number of inquiries have been made, and this was particularly apparent at the A. M. A. meeting in Milwaukee, last June. There are a great many agencies throughout the United States and possibly in Canada that have certain objects in view in the future, and it appears that our investigating committee is preparing, in many features, the first authentic factual data that have been available.

I think the matter this resolution contemplates should be very seriously considered, because we are covering fields other agencies have wished to have covered or have contemplated setting up their own organizations for investigation. I think it is well within the limits of possibility, and possibly probability, that one or more of these agencies would be very glad to contribute, some of them very substantially, to the work of our committee in getting information that they would have to spend a great many dollars to get independently and perhaps not so thoroughly.

I think the discussion of yesterday was ill-advised; perhaps not the discussion, but some of the ideas that were advanced. So long as this money is not forthcoming with strings attached, and so long as the ticket we may be presented with bears no stamped destination, I don't see why the Michigan State Medical Society should refuse to accept financial help from anywhere.

In going about to the last two or three A. M. A. meetings, I simply quote those because it gives us a broad view, from coast to coast have come questions in regard to this investigation that we have been conducting. I think the other A. M. A. delegates will bear me out in this, that inquiries were very much more frequent at Milwaukee than they were at New Orleans a year ago.

I believe if this House will just give the same consideration to a matter which this resolution would tend to obviate, we will not only reap benefit ourselves but we will be able to confer benefit upon the whole medical organization of this United States, and perhaps we can get, not as a committee but as the Michigan State Medical Society, some credit for being what we have in the past frequently been, pioneers in a work that is very much needed. (Applause.)

Dr. A. V. Wenger (Kent): Dr. Gorsline has expressed my views exactly. I want to endorse what he has said.

Dr. F. T. Andrews (Kalamazoo): Mr. Speaker, and Members of the House of Delegates: It seems highly improbable to me that we can sit here as a bunch of dele-

gates and not realize the enormous amount of work, and the thought and expenditure of time and money of the personal efforts of these men, and that we should not handicap their judgment in the selection of funds. We know only too well that men who have strived as these men have aren't going to put the House of Delegates in the hole, or the state of Michigan. They are going out to do their bit and strive with every effort. Instead of handicapping them and disheartening them by tying strings to these things, I think we should aid them by not passing such resolutions as this. (Applause.)

Dr. Baumgarten: There seems to be a little element of distrust in this matter. I don't see what objection there would be, of those men who feel they want to say something as to what funds we should accept, to having the House of Delegates pass on that, if that is what they want. Personally, I would be very much in favor of letting the committee use their own discretion.

Dr. Corbus: Mr. Speaker, I just wanted to have the record kept straight. I am sure we voted on this last night. I remember I spoke on the matter when Dr. Gariepy suggested that the expenditure of the Society would be $500. I would like to have the record kept straight and not pass two motions which are contradictory to each other.

Dr. J. D. Brook (Kent): As Dr. Corbus has just said, we took action on this very matter last night. To expedite matters, I should like to move that this portion of the report he deleted.

Dr. Spalding: This committee has given this matter some consideration, and in bringing forward this resolution they undouhtedly have some very good reason for it. I would like to have Dr. Catherwood go a little more into detail as to why this committee is recommending to this body the resolution he has just proposed.

The Speaker: Dr. Catherwood has a motion before the house, and for that reason, Dr. Brook, your motion is out of order.

We might dispose of Dr. Catherwood's motion. He has moved the adoption of the main part of the question, it being that the Society solicit no funds and that it accept no funds.

Dr. Catherwood re-read the resolution.

Dr. Brook: Was there a motion before the house to adont that?

The Speaker: Yes. there was.

Dr. W. C. Fllet (Berrien): I would like to amend this motion. I think with that method we can dispose of it to everybody's satisfaction. I would like to add to the end of that, "except such funds as may be approved by the House of Delegates."

The Speaker: The question is open for discussion.

Dr. V. L. Van Duzen (Wayne): I move that this motion be tahled.

The motion was regularly seconded.

Dr. Brook: It seems strange that we can't understand just how this thing is. Last night there was a distinct understanding that no funds would be accepted except hy the approval of this house. Now, if we adont this resolution, we are reversing our action of last night. That is a simple statement of fact.

Dr. A. F. Stickley (Ottawa): It seems to me we ought to put this motion to table. We are discussing something that is out of order.

The Speaker: The question is now to tahle the motion of Dr. Catherwood.

All in favor of the motion say "aye;" contrary, say "no." The motion is tabled.

Dr. Catherwood: Mr. Speaker, on behalf of the committee, I want to explain our action. There has been a great deal of criticism (perhaps you haven't all heard it, but our committee has heard a great deal of it) concerning the bringing in of perhaps the Rosenwald or Rockefeller fund and having them dictate the findings. There has been a great deal of criticism along that line. Our committee wanted to clarify this situation one way or the other so that we would know just where we stand, and we didn't know where we stood last evening after we finished.

I move the adoption of the report as a whole.

The motion was regularly seconded.

The Speaker: You have received this report of the Committee on Council and Officers. What is your pleasure?

Dr. Foley: If we adopt these resolutions as a whole we are adopting the thing we just tahled a while ago.

The Speaker: We are adopting the report.

Dr. Foley: That is, deleting that portion?

The Speaker: Yes.

You have received the report. Is there any discussion? The question now is the adoption of the report.

All in favor of the motion say "aye;" contrary, "no." The motion is carried.

The Speaker: The next order of business is the report of the Committee on Miscellaneous Business.

Dr. W. C. Ellet (Berrien): Mr. Speaker, this committee received two resolutions for action, and the first which came from the Genesee County Society was the resolution asking that the House of Delegates request the Executive Committee of the Michigan Tuberculosis Association to hire a qualified physician as executive secretary of that society.

Your committee approves of that resolution.

The second resolution introduced was one by Dr. Luce of Wayne, which reads as follows: (Dr. Ellet read the resolution.)

Dr. Ellet: Your committee approves this resolution. I move that these be adopted and put in the record.

The motion was regularly seconded.

The Speaker: We have received the report of this Committee on Miscellaneous Business. It is open for discussion.

All in favor of the motion say "aye;" contrary, "no." The motion is carried.

Next we will receive the report of the Committee on Society Affairs, Dr. Andrews of Kalamazoo.

Dr. Andrews: The first resolution which your committee is bringing to your attention is the one dealing with the Secretary of the Society.

Dr. Andrews read the resolution.

Dr. Andrews: We present at this time our report. "After considerable study and consultation with a large number of the members of the House of Delegates, the committee does not recommend the adoption of this resolution."

Mr. Speaker, I move the adoption of the committee's report.

Dr. Ellet: I support the motion.

The Speaker: You have heard this part of the committee's report, gentlemen: it is open for discussion.

The question was called for.

The Speaker: All in favor of the motion say "ave;" contrary, "no." The motion is carried.

Dr. Andrews: The second resolution reads as follows:

Dr. Andrews read the second resolution beginning with the words, "Whereas, many of the misunderstandings and controversies," and so forth.

Dr. Andrews: Approved without change. I move its adoption.

Dr. Baumgarten: I support the motion.

Dr. Wm. S. Reveno (Wayne): I don't helieve that is a state function. I believe that particular duty is conducted hy the individual county societies, and usually through the agency of the Ethics Committee of the county society.

I think the organization or the appointment of a Grievance Committee will serve to confuse the picture and will create a certain amount of interest and probably allow additional room for the airing of grievances that may exist in the minds of many patients.

I would urge that this resolution be not adopted, and that the ordinary channels that are now definitely established for the care of grievances be permitted to go on as they have in the past.

Dr. C. F. Moll (Genesee): In answer to Dr. Reveno's objections, that probahly should work very well in the manner outlined in counties like Wayne, Genesee, Kent, and some of the larger counties of the state, but in the smaller counties it doesn't work out at all.

One of the reasons that prompted me to introduce this resolution was the fact that while President of your Society last year I had many complaints of various sorts and kinds from the smaller counties throughout the state asking that the dispute be arbitrated. They had no method of doing that in a way that would prove satisfactory all around.

I can see why there would he some objection to this thing in the larger counties, but I think even some of the larger counties would not care to be hrought into controversial matters that are sometimes brought up in these things.

Therefore, I think it would be a fine thing to have a state Grievance Committee appointed so that if a man was not satisfied with the findings of his local committee he could carry it higher.

Dr. Stickley: It seems to me you are just complicating matters when you appoint a Grievance Committee. We have a Medical Defense Committee, and they should control that. It seems to me, if you are going to set up any committee, it should be under their control.

What are you going to do, decide the legal points? What is this committee going to do, compromise? That is what our Medical Defense Committee will try to do the first thing.

It seems to me the fewer committees you have, the more speed you are going to have and the more action you will get.

Dr. B. L. Connelly (Wayne): I would like to ask Dr. Moll approximately how many of these cases came up during his year as executive officer of the Society.

Dr. Moll: Fifteen or twenty.

Dr. Connelly: Were they in widely scattered sections?

Dr. Moll: No.

Dr. Connelly: It seems to me the work of the committee would run into quite a little sum of money in transporting the individuals back and forth and trying to get your committee, which may be selected from different parts of the state, together fifteen or twenty times during the year.

We already have a committee working for the Society that can handle this very well, the Medico-Legal Committee, and we already have funds provided to care for this sort of thing. I believe that is the proper place for this.

Dr. Reveno: In answer to Dr. Moll's contention that while it is easy for Wayne County and the larger counties in the state to handle grievances and problems of the sort that are under consideration here, I might cite you Chapter V of the By-laws under the heading of "Council," which states under Section 2: "Each Councilor shall be the organizer, peace maker and censor of his district."

We already have an agency to take care of grievances in the outlying communities as well as in the more densely settled communities.

Inasmuch as the By-laws already provide for a peace maker, or for one who would take care of grievances in these outlying communities, I feel it would be superfluous to appoint a state Grievance Committee.

The question was called for.

The Speaker: Does the assembly have the question clearly in mind, which has to do with the appointment of a Grievance Committee? Are you ready for the question?

All in favor of the motion say "aye"; contrary, "no." The motion is lost.

Dr. Andrews: The next resolution deals with hospitals and insurance.

Dr. Andrews read the resolution.

Dr. Andrews: Approved with the following addition: "We recommend that the preamble include hospitals which are rendering flat fee rates for professional services for obstetrical and other cases without professional remuneration or the choice of physicians."

I move the adoption of this recommendation.

Dr. Ellet: I will support it.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews: Mr. Speaker, I move the adoption of the report as a whole.

Dr. Reveno: I second the motion.

The Speaker: You have heard the motion. Is there any discussion?

All in favor say "aye"; contrary, "no." The motion is carried.

Next we will have the report of the Committee on Standing Committees, Dr. Penberthy.

REPORT OF THE COMMITTEE APPOINTED TO CONSIDER COMMITTEE REPORTS

1. The report of the Legislative Committee is accepted and your committee heartily endorses the recommendations therein.

2. The report of the Civic and Industrial Relations committee is accepted, and it is recommended that this committee be encouraged to introduce a bill at the next legislature providing for a Professional Lien Law.

3. No written report on the activities of the Woman's Auxiliary was submitted, but the verbal report of the chairman of the advisory committee is accepted.

4. The report of the Radio Committee is accepted, and it is recommended that this committee extend its activities towards an improvement in the ethics relative to information on medical education and medical subjects being broadcast by lay advertisers.

5. The report of the committee on Preventive Medicine is accepted, and your committee feels that it is a step in the proper direction. It also considers the plan of developing county health units sound and should be encouraged. Attention is called to Paragraph 4 of the committee's report, which is as follows: "The committee feels that the two prime essentials are, first, an alert and interested local medical profession and, second, a full time local health department, the function of which shall be purely administrative and educational, and not actively engaged in the practice of medicine."

6. The committee recommends that an abstract of the report of the A. M. A. Delegates be submitted for publication in the State JOURNAL.

7. The report of the special committee on "The Study of Birth Control" is accepted, with the recommendation as made by this committee, that further research and investigation be carried on by a permanent committee. It is further recommended that the name of this committee be changed to The Committee on Maternal Health. In this respect we feel it would be advantageous for the medical profession to discard the term "Birth Control" and in its place substitute "Maternal Health" with its broader meaning.

Respectfully submitted,
E. B. MINOR
R. B. BAKER
I. W. GREENE
G. C. PENBERTHY, *Chairman.*

Dr. G. C. Penberthy (Wayne): Mr. Speaker and Members of the House of Delegates: The report of the Legislative Committee is accepted, and your committee heartily endorses the recommendations therein.

I move the acceptance of the committee's report.

Dr. Andrews: I support it.

The Speaker: You have heard the question. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Penberthy: The report of the Civic and Industrial Relations Committee is accepted, and it is recommended that this committee be encouraged to introduce a bill at the next legislature providing for a professional lien law.

I move the acceptance of this report.

Dr. Reveno: I support it.

The Speaker: Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Penberthy: No written report on the activities of the Woman's Auxiliary was submitted, but the report of the Chairman of the Advisory Committee is accepted.

The report of the Radio Committee is accepted, and it is recommended that this committee extend its activities toward an improvement of the ethics relative to medical information and medical subjects be broadcast by lay advertisers.

I move the acceptance of this committee's report with the recommendation of your committee.

The motion was regularly seconded.

The Speaker: You have heard the motion, gentlemen. Is there any discussion?

All in favor say "aye"; contrary, "no." The motion is carried.

Dr. Penberthy: The report of the Committee on Preventive Medicine is accepted, and your committee feels it is a step in the proper direction. It also considers the plan of county health units sound, and should be encouraged. Attention is called to Paragraph 4 of the committee's report which is as follows.

Dr. Penberthy read the paragraph referred to.

Dr. Penberthy: I move the acceptance of this report.

Dr. Spalding: I second the motion.

The Speaker: You have heard the motion, gentlemen. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

If it is the wish of the assembly to give Dr. Wood the floor, the Chair will so rule. Do you wish the gentleman to discuss this motion after the vote has been put?

The Chair will call for division of the House. Dr. Wood arose. Do you wish to have Dr. Wood discuss this motion? How many do not wish to have him discuss it?

Dr. Wood, you may discuss this motion.

Dr. G. H. Wood (Northern Michigan): As a member of the Public Relations Committee, and also of the Committee on the Couzens Fund, which would include the relations with the county health unit inasmuch as they are one and the same thing in our locality, I would just like to say this: that we feel, at least some of us on the committee, we

still need to obtain a lot of information about our local conditions which would bear heavily on the wisdom of a conclusive action of this kind. It seemed to us that this motion was a little premature. It may be all right, but we still feel we need to get more information before we are sure we want to go ahead on such a basis.

The Speaker: Is there any further discussion on this motion, gentlemen? Are you ready for the question?

Dr. L. O. Geib (Wayne): I want to add to that motion. We didn't have time to put it in the committee meeting, but it was informally discussed afterward.

It is recommended that undergraduate instruction be given medical participation in the University of Michigan and the College of Medicine. We recommend that these institutions give us some kind of instruction in medical participation.

The Speaker: You were chairman of the committee. Does that agree with the other members of this committee? The Chair will not put it as an amendment. We will simply embody it as part of the resolution. Is there any objection on the part of anyone here?

You have the motion now. Are you ready for the question? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Penberthy: The committee recommends that an abstract of the report of the A. M. A. Delegates be submitted for publication in the state JOURNAL.

The report of the special Committee on the Study of Birth Control is accepted, with the recommendatoin as made by this committee that further research and investigation be carried on by a permanent committee.

It is further recommended that the name of this committee be changed to "The Committee on Maternal Health." In this respect, we feel it would be more advantageous for the medical profession to discard the term "birth control," and in its place substitute "maternal health," with its broader meaning.

I move the acceptance of the committee's report, which deals with further research and investigation, and with the recommendation of the Committee on Reports.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Penberthy: I move the adoption of the report of the committee as presented.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

There have been a number of other committees appointed. Dr. Christian, Committee on Amendments to the Constitution and By-laws.

Dr. L. G. Christian (Ingham): We wish to apologize to the Speaker and the House of Delegates for bringing our report in late. However, there are several changes in the Constitution and By-Laws that were necessitated by the action of the House, and there are many obsolete sentences that we have changed.

If it is your pleasure, I would like to submit the report without reading it, to be referred to the Committee on Society Affairs, and let them digest it and report back to us.

I move that this be referred to the Committee on Society Affairs for their consideration.

The motion was regularly seconded.

REPORT OF COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS OF MICHIGAN STATE MEDICAL SOCIETY

PROPOSED CHANGES TO THE CONSTITUTION

Section 1. This Society shall consist of active members, honorary members, associate members, retired members, and members emeritus. Members shall be members of Component County Societies who have been certified to the Secretary of this Society, and whose local and State dues have been paid.

Section 6. (New section) MEMBERS EMERITUS. Any physician who has been in practice for fifty years, and who has maintained a membership in good standing for twenty-five years, may, upon application and recommendation of his County Society, become a Member Emeritus. A Member Emeritus shall be relieved from paying State dues. He shall be entitled to all the benefits and privileges of membership.

ARTICLE IV—House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Society and shall consist of Delegates elected by component County Societies.

Section 5. The House of Delegates shall at the regular annual session elect the President-Elect, a Speaker and Vice-Speaker of the House of Delegates, Members of the Council, Delegates and alternate Delegates to the American Medical Association, and such other officers, as may be created by the House of Delegates unless otherwise specified in the Constitution and By-Laws.

ARTICLE VII—Meetings

Section 1. The Society shall hold an annual meeting at such time and place and of such duration as the House of Delegates and the Council may determine. This power may be delegated to the Council. Any County Society desiring the Annual Meeting shall file an application with the Council sixty days prior to an Annual session. . . . .

Section 2. Special meetings of the Society shall be called for general session on the petition of the Council, or by a petition signed by two hundred and fifty members or upon petition of two-thirds of the delegates registered at the previous regular session. The call for regular and special session shall be issued by the President and Secretary, complying with these provisions not later than ten days after receiving the petition, and shall go forth not later than thirty days before the proposed date of holding a regular or special session.

Section 3. Special meetings of the House of Delegates shall be called by the Speaker on the petition signed by two-thirds of the Delegates who served at the last regular session of the House. . . .

BY-LAWS

CHAPTER 1

Section 4. In addition to the qualifications specified in their respective Constitutions and By-Laws, County Societies shall exact as qualifications for Membership and its continued tenure, the acceptance and adherence to the Principles of Medical Ethics of The American Medical Association in accordance with the interpretation thereof by the Judicial Council of The American Medical Association, and such other qualifications as may be provided by this Constitution and By-Laws.

CHAPTER 2

Section 3. All registered Members at an Annual Session shall have an equal right to participate in the deliberations of a General Session and to vote on pending questions before the General Session.

Section 4. The general meeting or any of the sections may recommend to the House of Delegates or to the Council the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public. Such investigations and reports shall not become official action or expression of the Society until approved by the House of Delegates or the Council. No action taken at the general meeting shall be in conflict with the provisions of the Constitution and By-Laws.

CHAPTER 3

Section 6. The Officers of the House of Delegates shall be a Speaker and Vice-Speaker. The Secretary of the State Society, elected by the Council, shall be the Secretary of the House of Delegates. The Speaker and Vice-Speaker shall be elected by the House of Delegates at the Annual Meeting. The Speaker of the House of Delegates shall become a member of the Council and of its Executive Committee with the power to vote.

Section 7. (K) It shall have the following standing and business committees appointed by the Speaker: Committees on—

1. Council Reports.
2. Officer Reports.
3. Reports of Standing Committees.
4. Resolutions.
5. Report of Special Committees.
6. Miscellaneous Reports.

CHAPTER 4

Section 5. (New section). The Speaker shall preside at the sessions of the House of Delegates. He shall, with the approval of the President, appoint all Committees created by the House of Delegates, unless otherwise provided, and shall perform such duties as custom and parliamentary usage require. He shall have a right to vote only when his vote shall be the deciding vote.

The Vice Speaker shall assume the Speaker's duties in the Speaker's absence.

CHAPTER 5—Auditing Committee

Section 7. The chairman of the Council, subject to its approval, shall appoint an auditing committee of three members, designating one of the members as its chairman.

The Auditing Committee shall inspect all bills and claims against the Association and no bill or claim shall be paid except upon voucher or draft having the approval of at least two of the three members of the auditing committee. Provided, however, that any bill or claim may be paid without the approval of any member of the auditing committee by a majority vote or written approval of a majority of all the members of the Executive Committee.

PREPARATION OF BUDGET—ANNUAL ASSESSMENT

The Auditing Committee, prior to December 1 of any year, shall submit to the Executive Committee, for consideration at its December meeting, a budget under which the Society shall work in the fiscal year following the next annual session.

The Executive Committee, after consideration of the Auditing Committee's proposed budget, shall submit the same to the Council, prior to the spring meeting of the Council, with the report of its own containing suggested changes, additions or comments.

The Council in turn shall consider the two proposed budgets so submitted, and shall then make a final draft of a proposed budget for the Society, to be submitted to the House of Delegates at the next annual session.

The Council shall recommend to the House of Delegates the amount of the annual dues or assessments of each member of the Society.

CHAPTER 6—Standing Committees

Section 1. The following standing committee shall be appointed by the President by and with the advice of the Council.

(a) Committee on Legislation.
(b) Committee on Medical Economics.
(c) Joint Committee on Public Health Education.
(d) Committee on Cancer.
(e) Committee on Preventive Medicine.

Section 3. The Committee on Medical Economics shall consist of seven members appointed by the President by and with the advice of the Council.

The duty of this Committee shall be to collect, analyze and distribute information, and to advise Medical and other groups or individuals concerning Medical Economic Problems in Michigan. It shall have the power to appoint subcommittees and to seek information and coöperation whenever such action, in its judgment, is necessary to Public Welfare. It shall act as a central clearing house for the activities of committees on Medical Economics of the various County Societies throughout the State.

Section 6. (News section). The Committee on Cancer shall consist of five members appointed by the President and by and with the advice of the Council.

The Committee shall act as the representative of the Society in all matters dealing with the Study and Administration of Problems concerned with Cancer.

Section 7. Committee on Preventive Medicine shall consist of five members, appointed by the President, with the consent of the Council.

The duty of this Committee shall be to collect, analyze and distribute information on preventive medicine and to advise medical and other groups or individuals concerning problems of preventive medicine and public health.

CHAPTER 8

Section 1. The Secretary of each County Society shall collect and forward the dues to the State Secretary on or before April first of each year.

Your Committee recommend that those admendments that have been favorably acted upon be printed in the JOURNAL.

The Speaker: You have heard the motion. Is there any discussion?

Dr. Reveno: I would like to ask whether by referring these proposed changes to the By-laws to the Committee on Society Affairs it would be possible to have these proposed changes acted upon at this meeting of the House of Delegates. There are certain changes there that we feel are important and should be introduced before the next session of the House.

The Secretary: By-laws can be adopted this evening. The other would be amendments to the Constitution, which would lay over one year.

The Speaker: Do you wish to go any further with that, Dr. Reveno?

Dr. Reveno: That answers the question, as long as these proposed changes can be acted upon at this session of the House.

The Speaker: They can as far as the By-laws are concerned.

By resolution there was a committee of inquiry appointed having to do with publicity. We would like to have that report, Dr. Bradley.

Dr. Bradley read the report of the committee.

REPORT OF COMMITTEE ON INQUIRY

The committee charged with the investigation of the responsibility for the release of concluding Maurer articles beg to report:

After many hours of work and thought, after investigating all rumors, after asking many personal questions, and at times, seemingly impertinent questions, the following was established:

1. The Maurer articles were authorized by the Survey Committee.
2. The concluding article of the series was considered by the committee on the evening of the 11th.
3. The concluding article was given, before the special meeting, by Dr. Sinai to Dr. Warnshuis with the remark that it was the concluding article for the press.
4. Dr. Warnshuis gave the article to the press immediately preceding the executive session.
5. The treatment of the articles by the press was entirely beyond criticism and the subsequent handling of the matter by the press is deserving of highest praise.

It is the opinion of the undersigned committee that there was no intent on the part of any one to predetermine the policy of the Society or to injure the Michigan State Medical Society or the medical profession.

J. B. BRADLEY, *Chairman*
HENRY COOK
H. A. LUCE

Dr. Bradley: I would like to move the adoption of the report.

The motion was regularly seconded.

The Speaker: You have heard the motion. The question now is on the adoption of the report of this committee of inquiry. Is there any discussion?

All in favor of the motion say "aye"; contrary "no." The motion is carried.

Are there any other committees to report at this time?

President Robb: I would like to say just a word. In the matter of inquiry, we had just one idea in mind, and that was we realized the House of Delegates is the legislative body of this State Society. There isn't anyone who should anticipate its action.

As far as I can determine from the report I have received, it has been a comedy of errors in which no one had any intent to damage the Society. It is a lesson, though, to myself and to all the committees that this is the legislative body, and that committees must report thereto before they pass information to the outside.

The Speaker: Is there any unfinished business or any new business?

The Secretary: There has been received within the last forty-eight hours a communication from the Bureau of Legal Medicine and Legislation of the American Medical Association regarding a uniform state narcotic act, signed by Dr. Woodward. It is a lengthy communication.

Yesterday, I received a telegram from the federal narcotic administrator at Washington stating that if this House desired he would send a representative to this meeting to explain to the House of Delegates the controversial features of the present narcotic problem. I replied and told him the House would welcome his sending some representative of the Narcotic Bureau to this meeting to make such an explanation. I have not yet heard from him.

I suggest, Mr. Speaker, that this communication be held in abeyance as unfinished business until this

evening, in the hopes that that speaker will come, at which time this may then be read.

The Speaker: Is there any other business?

Dr. L. C. Gariepy (Wayne): Mr. Speaker and Members of the House of Delegates: I want to make just a word of explanation at this time to correct any misinformation you may have had.

The resolution that I brought forth yesterday was not fostered by the Wayne County Medical Society, and was not fostered by the University of Michigan. It is an idea that has grown with me, and I have thought of it considerably because it was fostered by men not in the Society. I have no grievance against Dr. Warnshuis, or anyone, but the idea was to put across a resolution whereby we would improve our Society.

No blame should be placed on the University of Michigan or the Wayne County Medical Society. I will take all the grief there is to it.

The Speaker: Is there any other business, gentlemen?

Dr. G. H. Yeo (Mecosta): I want to make a comment in regard to the resolution passed last night regarding the amount of money that should be allotted to the Committee on Medical Economics.

I believe the interest of the men in the Society is much greater than would be assumed, even though we haven't the money in the Society to put into it.

I would like to suggest that the Secretary of the Society send out questionnaires to the members of the State Medical Society inquiring as to their interest in the work of this committee, and ask for contributions to this fund. I believe there are many physicians who are quite willing and ready to give money toward this, and in the aggregate it would be a sum they could use very well. I think there are many men who would be quite willing to give $5 apiece for this work, if not more.

I make that as a motion.

The motion was supported by several.

The Speaker: You have heard the motion, gentlemen. It has to do with the Secretary sending out a questionnaire to the members of the Society, and accepting funds from the members of the Society. Is there any discussion?

Dr. Ellet:. Will not the sending out of that questionnaire involve quite a little expense, and how many physicians can afford to contribute at this time?

The Secretary: About $100.

Dr. Corbus: I can't help but wonder whether the response would justify the expense involved just at this time. I have no particular objection to sending these trial balloons up if you can do it for $100, but I don't believe you will get enough response to justify it. The committee is going to need a good deal of money if we are going to go along very far. The cost to the individual member at the present time has been about $4. I would like to hear what the Secretary would say about that.

Can we do it through the Journal and get equal response?

The Secretary: No, you can't do it through the Journal. It must either be direct to the member, or if each county society canvass their membership we can do it that way. Of course that makes a difficult problem in Wayne. It might be well to send the questionnaire to the 1,200 or 1,300 members in Wayne, and then let the other county societies survey their membership.

Dr. L. T. Henderson (Wayne): At this time there are so many members of the Michigan State Medical Society who haven't paid their dues, I wonder how they can afford to contribute to a fund of this kind.

I would like to see some other attack for money, but I think they should leave the doctor out of it, at least temporarily. I don't think you would get $100 back.

Dr. T. J. Carney: It is my judgment that there is a fair element of the medical society of our state who will contribute very liberally for the conitnuation of this splendid work which has been done by our committee. It does seem to me that an appeal, giving them opportunity if they see fit to do so, would be a very laudable experiment at least, and I believe would be productive of results.

Dr. R. M. McKean (Wayne): The Secretary has said that it wouldn't be practical to put it in the Journal. I wonder if it couldn't be put in like an ad, a little corner at the end of this report asking for donations, with a place where they could put their name and pin on their $5 or $10 contribution.

The remark has been made that people don't read the Journal. If they don't read the Journal they are not interested enough to read the original report of the committee. It will save the cost of $100, and I don't think it would be expensive to have that in the Journal.

The Speaker: In view of the remarks just made, maybe you would like to change your motion, Dr. Yeo.

The Secretary: Make the motion read that the Secretary be authorized to canvass the members in the state in such manner as may be approved by the Executive Committee of the Council, utilizing the suggestions of Dr. McKean, those of Dr. Ellet, and some others that will come in afterward.

Dr. Yeo: The thing I want to do is to give the members a chance to contribute to something that is vitally to our benefit, and something I think, as Dr. Carney said, in which a very large proportion of the Society is keenly interested.

The Speaker: I infer that Dr. Yeo withdraws his original motion, and places his motion now as suggested by Dr. Warnshuis. Is that correct?

Dr. Yeo: That is correct.

The Speaker: Is there any discussion? All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Wood: I wish to present this resolution.

RESOLUTION

Whereas the problem of medico-economics is new as regards mass organization; and

Whereas any action taken will affect all practitioners of medicine;

Be It Resolved, That the whole problem, as at present under consideration, be referred to each component county society with a request to study the whole, or any part thereof, as a majority of its members shall deem most expedient, and to make a report of such information and such recommendation, with the reasons, as it shall deem proper thereof, to this society's committee in time for it to utilize such reports in making up its own report at the annual meeting in 1934.

This is not intended to supplant or conflict with any action previously taken.

G. H. Wood
Northern Michigan Medical Society

The Speaker: This resolution will be referred to the Committee on Society Affairs.

Is there any other business?

The Secretary: If the delegates have no other business, there is an afternoon session scheduled at two-thirty. The suggestion would be that the afternoon session be abandoned and the House convene at seven-thirty tonight.

The Speaker: Is there any objection to that plan?

Dr. Reveno: On the question that I raised before regarding the By-laws, do those have to come up at one session and be voted on at a subsequent session?

The Secretary: No.

The Speaker: We have given previous notice, Dr. Reveno, on the By-laws.

Dr. Reveno: We haven't read the proposed changes to the delegates. The delegates are not acquainted with the content of the changes proposed by the committee.

The Secretary: It can be read in five minutes now.

The Speaker: I think Dr. Reveno is quite in order that the proposed changes in the Constitution and By-laws should be read now.

The Secretary read the proposed changes in the Constitution and By-laws.

The Speaker: That gives you notice of the contemplated changes in the By-laws. You can vote on them intelligently this evening.

The Secretary: I think we all revere and appreciate the honor we have had in the leadership of the President-Elect and President of this Society this past year, Dr. Robb. I am not quite sure whether you are all familiar with Dr. Robb as others are, and in order that we may have a little insight as to how a man attains the qualifications he has attained of leadership, may we not have his good companion, Mrs. Robb, presented to the House and have her make a few remarks.

The audience arose and applauded.

The Speaker: Dr. Hyland, our State Treasurer, will escort Mrs. Robb to the platform.

Dr. Wm. A. Hyland: Mr. Speaker and Gentlemen, Mrs. Robb. (Applause.)

Mrs. J. Milton Robb: I think for a Robb to say any more would be too much, except to thank you very much for all your hospitality in Grand Rapids. (Applause.)

The Speaker: Gentlemen, if there is no other business, and there is no objection on the part of the assembly, we will adjourn until seven-thirty this evening.

The meeting adjourned at twelve-fifty o'clock.

Fourth Session

Tuesday Evening, September 12, 1933

The meeting convened at seven forty-five o'clock, the Speaker presiding.

The Speaker: Gentlemen, come to order.

Has the Credenitals Committee a report to make, Dr. Ellet?

Dr. Ellet: I haven't the number of delegates. They haven't been collected yet.

The Secretary: It is quite essential that every delegate sign a roll call, because when it comes to ballot only those recorded in the roll call are entitled to vote.

Mr. Speaker, I have in my hand the roll call of sixty-seven accredited delegates.

The Speaker: If there is no objection on the part of the assembly, this will be considered the roll call of the House. Is there any objection?

The Speaker: Some matters were referred to the Committee on Society Affairs, Dr. Andrews, Chairman.

Dr. Andrews: The first resolution presented to your committee reads as follows.

Dr. Andrews read the resolution beginning with the words, "Whereas, The problems of medical economics is new as regards mass organization," and so forth.

Dr. Andrews: Your committee feels that the intent of this resolution is solely to encourage the study of the work of the Committee on Medical Economics by county societies of their own volition, and forward their ideas and recommendations to the central committee.

If this is the purpose of this resolution, your committee heartily endorses it. I move the adoption, Mr. Speaker.

The Speaker: You have heard this resolution. Dr. Andrews has moved its adoption.

The motion was supported by several.

The Speaker: Is there any discussion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews: Next were the changes in the By-laws, and the report on the revision of Constitution and By-laws of the Michigan State Medical Society.

Dr. Andrews read Chapter I, Section 4 of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read Chapter II, Section 3 of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read Chapter II, Section 4 of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was seconded by several.

The Speaker: You have heard the motion. Is there any discussion?

Dr. H. R. Carstens (Wayne): Does that mean the general Society cannot take action unless approved by the House of Delegates or Council?

The Speaker: Will somebody give the gentleman the information?

Dr. D. P. Foster (Wayne): I think that is explained by the amendment itself. We might have it read again for Dr. Carstens' benefit.

Dr. Andrews re-read the section.

The Speaker: Does that give you the information, Dr. Carstens?

Dr. Carstens: Yes.

The Speaker: Is there any discussion of this motion? All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews read Chapter III, Section 6 of the By-Laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews read Section 7-c, Chapter III, of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion, gentlemen. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews read the new Section 5.

Dr. Andrews: Approved without further change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read Chapter V, Section 7 of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: Gentlemen, you have heard the motion. Is there any discussion?

Dr. Corbus: Mr. Speaker, I am inclined to approve of this as Chairman of the Council, providing we are not getting in trouble with the machinery of its operation. It seems to me the Secretary might perhaps talk on that. If it is not going to interfere with the machinery of handling accounts so that we are going to be terribly handicapped, then I am quite for it.

Dr. Christian: As chairman of this committee, this was considered merely to clarify matters. In other words, we understand the Council has an auditing committee. We merely wish to put that in the By-laws to make the action of the Council's present finance committee legal. There is no intent on the part of the committee to attempt to hamper the Council at all. In fact, this entire chapter was taken verbatim from the Constitution and By-laws of the California State Medical Association. That is in explanation.

Dr. C. F. Moll (Genesee): I would like to ask if there is anything in this change of Constitution that prevents members of the Council acting as the auditing committee.

Dr. D. P. Foster (Wayne): There is nothing in this article which would prevent the Council from appointing any

auditing committee they wished. It may consist of its own members if they so desire.

The Speaker: Are there any further questions, or discussion?

You have heard the motion, gentlemen. All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read the section regarding the preparation of budgets, annual assessments, and so forth.

Dr. Andrews: I move its adoption.

The motion was regularly seconded.

The Secretary: May I suggest that in place of "the spring meeting," it be designated as "the mid-winter meeting." There is no spring meeting of the Council.

Dr. Carstens: I wonder if due thought has been taken to our fiscal year. As I understand the proposed amendment, the spirit of which I concur in entirely, in December of this year the object would be to consider the matter of the budget. This is presented to the Council at the January meeting, but that budget would have to be for the fiscal year of 1935. That is, it would come up before the delegates in September, 1934, one year from now, to go into effect the first of January, 1935. In other words, the budget is prepared over a year ahead of time. Is that the way?

Our fiscal year at present is from the first of January to the thirty-first of December. Plainly, if you make up a budget in December, which hitherto has always been adopted in January, the next one would be in January, 1934, which would not be presented to the House of Delegates until September, 1934, and it is presumed that is the budget for 1935. In other words, there is one year of vacant period there. Possibly Dr. Foster could enlighten us.

Dr. D. P. Foster: This meeting being held in September, and the next fiscal year starting January, that would be the budget which would be approved for the year after the annual meeting was held, and not a year hence.

Dr. Carstens: Let us take this year, for example. The Auditing Committee will meet in December, 1933. Is that right? It will present the budget to the Council in January, 1934, at the mid-winter meeting. When could it come to the Council, and for what year would that be?

Dr. D. P. Foster: For 1935. It would be adopted by the House in 1934, and would be the budget for 1935.

Dr. Carstens: I don't know whether it is feasible to submit a budget some fourteen or fifteen months in advance of the beginning of the fiscal year.

Dr. Foster: The budget prepared by the Auditing Committee would be presented to the Council. The budget prepared by the Trustees, based on this budget of the Auditing Committee, would be presented to the Council. The Council would consider these two budgets and make their recommendations to the House of Delegates in September, and on their recommendations the House would act. That would not be before September of the year preceding the fiscal year in which this budget should be operated.

Dr. Carstens: I merely submit to the House whether it is feasible to prepare a budget thirteen or fourteen months in advance of the beginning of the fiscal year. If it is proposed at one of the summer meetings, probably in July or August, that would be six months in advance, but thirteen or fourteen months would be rather long.

Dr. Brook: Inasmuch as the contents of this Section of the By-laws do not seem feasible nor practicable because of the interval of time, I move that this Section be laid on the table.

The motion was regularly seconded.

The Speaker: Gentlemen, you have heard this motion to table.

Dr. Foster: At the time the Council would act on this budget, there will be three months intervening between the time the House acts on the budget and the time it will become an operative procedure. It will be in September that the House will act upon the budget which is presented by the Council, after having recommendations from the Board of Trustees and from the Auditing Committee.

Dr. Brook: Point of order. A motion to table is not debatable, as I understand it.

The Speaker: The motion before the House is to table this part of the report.

All in favor of the motion say "aye"; contrary, "no." The motion is tabled.

Dr. Andrews read Chapter VI, Section 1 of the By-laws.

Dr. Andrews: Approved by your committee, and I move its adoption.

The motion was regularly seconded.

The Speaker: Gentlemen, you have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews read Section 3.

Dr. Andrews: Approved with the change that this be limited to five members. I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read the new Section 6.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

Dr. Brook: Again, I notice in this Section the committee shall be appointed by the President, by and with the approval of the Council. It seems that Section infers we have not confidence enough in the President to appoint a suitable committee. I would move, Mr. Chairman, that the clause "by and with the approval of the Council" be deleted.

The motion was regularly seconded.

The Speaker: You have heard Dr. Brook's amendment to this motion. Is there any discussion?

Dr. Baumgarten: I believe there is a separate section in the Constitution (I don't know whether it comes under the President's duties or somebody else's duties) which says pointblank that all committees shall be appointed by the President on the advice of Council, and that phrase has simply been incorporated in all these various amendments which have been submitted here. There is a separate section in the Constitution which already provides that. That is merely incorporated in these separate amendments.

President-elect Le Fevre: I would rather have the appointments made by the President with the approval of the Council. I think that should be. I don't think it is a safe thing to have one man appoint all these committees, and the advice of the Council would be very valuable.

Dr. R. M. McKean (Wayne): Do I understand this section to read "by and with the approval of the Council"?

Dr. Andrews: "Appointed by the President, by and with the advice of the Council."

Dr. McKean: My amendment would be to delete the "by and" in that particular section.

Dr. Baumgarten: I would like to ask the Secretary which section I have reference to.

The Secretary: Chapter VI of the By-laws—Standing Committees. Section 1. "The following standing committees shall be appointed by the President, by and with the advice of the Council."

The Speaker: The question now is first your motion, then an amendment to it by Dr. Brook deleting the words "by and with the advice of the Council," and then another amendment by McKean of Wayne deleting the words "by and."

The question now is the amendment as stated by Dr. McKean to delete the words "by and."

Dr. F. W. Garber, Sr. (Muskegon): Is this a part of the Constitution?

The Speaker: The By-laws.

Dr. Baumgarten: I don't see that you are doing anything at all. I don't see that there is any objection to leaving these words in, which are already in the Constitution in a previous article. I don't see that you are changing the matter one bit.

The Speaker: That is the way the Chair feels about it, but the amendments are here.

Dr. Brook: I see the gentleman's point clearly. If it is true that it is in the Constitution, I will withdraw my amendment. There is no use making any motion.

Dr. McKean: As I understand Dr. Baumgarten, the Constitution says it shall be with the advice of the Council.

Dr. Baumgarten: "By and with."

Dr. McKean: If it is in the Constitution, we can't do anything about it in this session. In that case, I withdraw my amendment.

Dr. Brook: I won't withdraw my amendment if it is in the By-laws. If it is in the Constitution, I will.

The Speaker: It is not in the Constitution. It is in the By-laws only.

Dr. McKean: In that case, I would suggest that "by and" be deleted, making it read, "The committees shall be appointed by the President with the advice of the Council."

Dr. Spalding: I second the motion.

Dr. Brook: Perhaps I can help the thing along by agreeing with Dr. McKean to the elimination of the two words "by and," and I will withdraw my amendment. Therefore, we have but one amendment to vote on.

Dr. Cook (Genesee): There seems to be a feeling to take away from the President the appointment of these men. I would like to recite to you something of the experience which the Executive Committee of the Council have each year, in order to place before you clearly the workings of the appointment of these committees.

As I view it, there isn't any President of the Society who would want to appoint committees without the advice of the Council, even if you didn't pass this section, because it is reasonable to feel and expect that the advice and judgment and the acquaintanceship of five or six men would be of extreme value in passing judgment as to who can best serve you upon the committees, and it seems to work out that way.

I have sat upon the Executive Committee from time to time, and have spent approximately an hour and a half in going over these committee appointments with the President. He recommends who, in his judgment, are eligible and would best serve you. I have in mind times when I, myself, would feel that a certain individual would be well qualified, but there would be someone on the Council, the President, or some other officer, who might state for some reasonable reason why this man would not best serve you.

It is my honest opinion, gentlemen, that the committees appointed with the judgment of four or five men are better and will better serve you than the judgment of one man, because it is impossible for him to know all of the profession in Michigan even if he had been at all the meetings over a period of ten years. It is my humble opinion that

you will best be served by committees appointed by the President, and with the advice of the Council.

I think that says "and with." Then I am out of order. Pardon me, if I am talking out of turn, but it seemed to me that was the right way to appoint committees.

The Speaker: The amendment of Dr. McKean is before the House to delete from this committee's report the words "by and," and it will then read "with the advice of the Council."

Do you want to discuss Dr. McKean's amendment any more? If not, all in favor of the amendment to the motion say "aye"; contrary "no." The amendment is carried.

The question now is the adoption of this committee's report as amended by Dr. McKean. Is there any discussion?

All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Dr. Andrews read Chapter VI, Section 7 of the By-laws.

Dr. Andrews: Approved without change, and I move its adoption.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

Dr. Christian: Sitting here beside Dr. Geib, he calls my attention to the fact that the Committee on Preventive Medicine consists of nine members. I am sure it is not the idea of the committee to hamper it in any way. He says there are nine good men, and he would like to have the nine members as it now stands. I move that the word "five" be changed to "nine" members.

The motion was regularly seconded.

The Speaker: You have heard the amendment to this motion changing the wording from "five" to "nine." Do the members of the committee agree to having that change?

Dr. L. O. Geib (Wayne): The reason I say that is this: The state is rather large. A good deal of this work is unfamiliar to a great many county societies, and I think it is well to have the members of the committee as it is now with such widely distributed districts. The work is largely educational, and I think it really is essential to have nine members.

Dr. Andrews: The committee would be glad to accept that change, I am sure.

The Speaker: Gentlemen, this will be changed then from five to nine. The question now is the adoption of this report. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Andrews: Your committee recommends that these amendments that have been favorably acted upon be printed in the Journal.

I move the adoption of the report in its entirety.

The motion was regularly seconded.

The Speaker: You have heard the motion to adopt the whole report. All in favor of the motion say "aye"; contrary say "no." The motion is carried.

Are there any other committees to report, Mr. Secretary?

The Secretary: None that I know of.

The Speaker: Is there any other business you want to bring before the assembly, gentlemen, before we go on with the election of officers?

ELECTIONS

Next in order are nominations for the office of President-elect.

Dr. F. T. Andrews (Kalamazoo): Mr. Speaker and Members of the House of Delegates: I wish to place before you the name of a man of which Grand Rapids and the entire state of Michigan is proud. He has an international reputation, has been author, scholar and gentleman, and stands supreme in his chosen profession. The name of this man is Dr. Richard Smith of Grand Rapids.

Dr. Carl F. Snapp (Kent): I should like very much to support the nomination of Dr. Smith. Probably no man in Michigan is better versed or informed in medical problems and medical questions than Dr. Smith. This is not only locally in the state but, as Dr. Andrews has stated, nationally and internationally.

He is a real student in every sense of the word. He will tackle any problem, no matter how large or how small, with the greatest of enthusiasm and conscientiousness and work it through to the end. That has been exemplified in some of the reports he has presented before our State Society, and has also been exemplified in the reports he has brought from his studies and investigations in medical and hospital conditions throughout the world, for instance, in Scandinavia, New Zealand, Australia, South America, and so forth. If any of you have heard those reports, you can see how well and how thoroughly he studies these questions.

He is a real leader in every sense of the word, and I should like to support wholeheartedly this nomination.

The Speaker: Are there any further nominations for the office of President-elect?

Dr. Brook: I would like to move, in the absence of any other nominations, that the nominations be closed, and that the Speaker be instructed to cast the ballot of this House for Dr. Smith.

The motion was regularly seconded.

The Speaker: You have heard the motion. Is there any discussion?

All in favor of the motion signify by saying "aye"; contrary, "no." Your Speaker does cast, and declares Dr. Richard Root Smith, President-elect for this Society for 1934.

Next is the nomination of a Delegate to the American Medical Association. Dr. Louis J. Hirschman's term has expired.

Dr. F. W. Garber, Sr. (Muskegon): Mr. Speaker and Brother Delegates: I wish to place before you for your consideration the name of a man who has been a member of this Society for a long time, who has been a delegate of this Society for many years; who is acquainted with its needs and who is acquainted by experience with the needs of the general practitioner, and who is acquainted with the needs of the specialist; who is fitted by education, sympathy, and in a political way, to be a competent representative of this Society. I present the name of John L. Chester of Detroit.

The audience arose and applauded as President-elect Smith came to the platform.

The Speaker: Gentlemen, I take great pleasure in introducing to you Dick Smith.

President-elect Smith: I have just been informed of my election as President-elect of the State Medical Society, and I want to thank you one and all for this very great honor which you have conferred upon me.

Like many of the rest of you, I have been interested through the years in the advancement of scientific medicine in this state. I have been interested in the people of this state and the benefits of scientific medicine. I have been interested in a way in medical education. I have been interested in hospitals, and I have been interested above all in organized medicine in this state and what it is doing to promote scientific medicine. I am hoping the experience I have had through these years I can turn to good advantage for the benefit of the State Society.

I thank you.

The Speaker: We are at the business of electing a Delegate to the A. M. A. Dr. Garber has just nominated Dr. Chester. Are there any further nominations?

Dr. Keyport: I wish to place in nomination for Delegate to the A. M. A. a man who is nationally known, a man who has been a President of the Michigan State Medical Society, and a man who has spent a number of years in the position of Delegate to the A. M. A.

I feel that Dr. Hirschman is probably as well if not better qualified for this position than anybody else I know of. I would like to place his name in nomination.

Dr. McKean: I sincerely second that motion.

The Speaker: Are there any further nominations?

Dr. Spalding: I move that nominations be closed.

The motion was regularly seconded.

The Speaker: We will now proceed to ballot.

Dr. Sevey, Dr. Insley, and Dr. Keyport, will you act as tellers, please?

Has everyone voted who is entitled to vote? If so, the Chair declares the ballot closed.

Dr. J. L. Chester (Wayne): I move that the Secretary be instructed to cast the ballot for Dr. Hirschman, and that he be made the unanimous choice of this House for Delegate to the A. M. A.

The motion was regularly seconded.

The Speaker: All in favor of the motion say "aye"; contrary. The motion is carried.

The Secretary: Your Secretary takes pleasure in so casting.

The Speaker: The Chair declares Dr. Hirschman elected as Delegate to the A. M. A.

The next nomination is for alternate delegate to the American Medical Association.

Dr. A. V. Wenger (Kent): I take pleasure in nominating a gentleman who has had many years of experience as a delegate to the American Medical Association and knows well the workings of that organization.

I would like to nominate Dr. Carl Moll of Genesee.

The Speaker: Are there any further nominations, gentlemen?

Dr. Ellet: If there are no other nominations, I would like to move that the nominations be closed, and that Dr. Moll be elected by unanimous ballot and the Secretary be asked to so cast.

The motion was regularly seconded.

The Speaker: You have heard the motion, gentlemen. All in favor of the motion say "aye"; contrary, "no."

The Secretary: Your Secretary takes pleasure in so casting.

The Speaker: The Chair declares Dr. Moll elected as alternate delegate to the American Medical Association.

Next is the election of Councilors. For the Eleventh District, Dr. Treynor filled the unexpired term of Dr. Le Fevre, and his term has now expired.

Dr. Corbus: Before you vote on the Councilors, may I suggest to you that there is a geographical division in the upper peninsula. When you come to nominate your men in the upper peninsula, since that geographical division has not been made, may I ask you to nominate somebody in the far east and far west, so that we may be able to satisfactorily divide the upper peninsula.

May we also have the permission or authorization of the Council to so stagger the terms of office that we may be able to re-arrange the Councilor's term of office so that we will have a rather equal number of men going off every year, and particularly that we may not lose both of the Councilors in the upper peninsula from the Council at the same time.

The Speaker: When we come to nominations for that district, Dr. Corbus, the Chair will keep that in mind.

Nominations are now in order for Councilor of the Eleventh District.

Dr. Yeo: I would like to nominate the present incumbent, Dr. Thomas Treynor, who has ably filled that position.

The motion was regularly seconded.

Dr. D. P. Foster: Might I ask for a point of information. If I am not misinformed, the Constitution provides that a caucus of the delegates from any particular district nominate the man who is to represent them. Is that true, or is it not true?

The Secretary: The delegates from any Councilor District shall nominate through the House of Delegates the Councilor for their District.

Dr. Garber: Point of order. Did we elect all the alternates? It says here that those whose terms of office are expiring are Carl F. Moll and Henry E. Perry.

The Speaker: You are right, Dr. Garber. We will take up the nomination of Dr. Treynor later and return to the nominations for alternate delegate for the term of Henry E. Perry, which is expired.

Dr. Brook: I should like to nominate Dr. Perry to succeed himself.

The nomination was seconded.

The Speaker: Are there any further nominations, gentlemen?

Dr. Perry: I decline that nomination. I can't very well accept it.

The Speaker: Dr. Perry declines the nomination, gentlemen, so nominations are in order.

Dr. Garber: Mr. Speaker, I nominate the gentleman I nominated before for Delegate. In other words, I present the name of John L. Chester.

The nomination was seconded.

The Speaker: The name of John L. Chester has been placed in nomination. Are there any further nominations?

Dr. Phillip Riley (Jackson): In view of the fact that there are no further nominations, I move that nominations be closed, and the ballot be cast for Dr. Chester.

The Speaker: All in favor say "aye"; contrary, "no."

Your Speaker does cast, and declares John L. Chester elected as alternate delegate to the A. M. A.

Now we are under nominations for Councilor of the Eleventh District, and Dr. Treynor has been nominated.

We come back to this question of caucusing. I have had advice here and there that the men from the respective counties have already caucused, and the Chair will take it for granted they have caucused. It happens that Dr. Yeo is from Mecosta County.

Dr. L. W. Switzer (Mason): I wish to support the nomination of Dr. Treynor.

Dr. McKean: If there are no further nominations, I move the election be made unanimous, and the Secretary be instructed to cast the ballot.

The motion was regularly seconded.

The Speaker: All in favor say "aye"; contrary, "no." The motion is carried.

The Secretary: Your Secretary so casts.

The Speaker: The Chair declares Dr. Treynor elected.

The Chair would like to have some information. They wish to stagger these nominations so that one has possibly a year's term, or two years.

Dr. Corbus: The Council asks authorization to stagger the terms of office so that we may re-arrange our list so we will have a relatively equal number going off the Council each year, and particularly in this instance so that we may not have two of the Councilors from the upper peninsula going off at the same time.

Dr. Spalding: I so move.

The motion was regularly seconded.

Dr. Andrews: I rise to a point of order. I believe that would be unconstitutional. I think the election of the members of the Council is set forth in our Constitution in such a manner that that could not be done.

The Speaker: Will you read that section, if you have it before you, for the information of the assembly?

The Secretary read Article VIII of the Constitution.

Dr. Corbus: Under that there is a certain liberty given, so we will conform with that arrangement that no more than four shall go off. That is all we desire to do.

Dr. Brook: I move that the Council be empowered to stagger the terms of office of these Councilors from the upper peninsula.

The motion was regularly seconded.

Dr. Moll: I wish to make a motion—

The Speaker: There is a motion before the House, Dr. Moll.

Dr. Brook: I will withdraw mine.

Dr. Moll: I wish to make a motion that the eastern portion of the upper peninsula remain the old Twelfth District, and the western portion be the new Seventeenth District. I think this will expedite matters greatly, and we can go on with the nomination of Councilors for their respective districts.

The motion was regularly seconded.

The Speaker: You have heard Dr. Moll's motion. Is there any discussion?

All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Nominations are in order for Councilor of the Twelth District.

Dr. Brook: Mr. Speaker, still the matter of time has not been taken care of. I repeat my motion.

Dr. Moll: I think it has, because the Twelth District man's term has expired. The new Seventeenth District will be the staggered district.

The Speaker: It seems to the Chair that they start at the same time and expire at the same time, five years hence. Do they not, Dr. Brook?

Dr. Corbus: I am not quite prepared to say how we are going to stagger them. We will have to stagger them a little differently now, then look over the whole list so that no more than four go off. The intention is not to cut a

man's term down, but simply to get into the position where the Council remains reasonably intact.

Dr. Brook: I will withdraw the motion.

Dr. Insley: I would like to ask the Chair for a ruling. As I understand it, we are on the election of officers at the present time. I believe two or three motions that have been advanced probably come under the head of new business. I would like to get this thing straightened.

On top of it all, we come to this staggered proposition. Is that part of the Constitution or part of the By-laws? We are trying to change the Constitution tonight.

The Speaker: The Council has made a suggestion. We do not wish to open any new business. If we are going to elect men and then find it is illegal, there is no need in having election.

Dr. Insley: I just asked for information as a point of parliamentary procedure.

The Speaker: Are there any nominations now for Councilor for the Twelfth District?

Dr. Meaghers (Chippewa): I wish to nominate a man for Councilor of the Twelfth District who has long been associated with the advancement of scientific medicine in the eastern end of the upper peninsula, and well known to a majority of delegates here. I refer to Dr. Perry of Newberry. (Applause.)

The nomination was supported by several.

The Speaker: Are there any further nominations, gentlemen?

Dr. C. S. Ratigan (Wayne): I move that nominations be closed, and that the Secretary be instructed to cast the unanimous ballot for Dr. Perry of Newberry.

The motion was regularly seconded.

The Speaker: You have heard the motion. All in favor of the motion say "aye"; contrary, "no." The motion is carried.

The Secretary: The Secretary does so cast.

The Speaker: The Speaker declares Dr. Perry elected.

Dr. Brook: I would like to move that we proceed to the election of Councilor for the Seventeenth District, whose term of office shall expire at the pleasure of the Council.

Dr. Baumgarten: How can the Council arbitrarily terminate a Councilor's office when the Constitution specifically states he is elected for five years?

The Speaker: I think Dr. Baumgarten is right. We will simply have to go on and have this thing taken care of in some other way since we can't change the Constitution tonight.

Dr. Spalding: The same article of the Constitution also provides that the election shall be so arranged that only four go off at once. That is in the same section.

Dr. Riley: If you are going to be so constitutional, why don't we properly elect either Carstens, McIntyre, Hafford, Baker, or Brunk? The Constitution says not more than four men shall go off at one time, and five of them are going off next year.

The Speaker: The Chair will leave this matter open for another year.

Dr. Ellet: As I understand it, this will have to have a constitutional amendment, and if we wish to have a Councilor for next year some mechanism should be set in motion so that a Councilor can be elected next year.

Therefore, I move that a committee be appointed who will make such an amendment to the Constitution.

The Speaker: That is new business and is out of order, Dr. Ellet.

We now proceed to nominations for Councilor of the Seventeenth District.

Dr. H. E. Perry (Luce): I take great pleasure at this time in placing in nomination the name of W. A. Manthei of Lake Linden for Councilor of the Seventeenth District.

The nomination was supported by several.

The Speaker: Are there any further nominations?

Dr. H. A. Luce (Wayne): Mr. Speaker, is it possible to elect a Councilor, an active Councilor for a period of one year and thus obviate the difficulty?

The Speaker: Not under the Constitution.

Dr. Manthei's name has been placed in nomination. Are there any further nominations? Does somebody wish to move that nominations be closed?

Dr. Stapleton: I so move.

Dr. D. P. Foster: I have a suggestion to make which may possibly clear this situation, and that is that this motion for creating this new district be recalled for reconsideration, and in that motion for the creation of this new district that it be specifically stated the first Councilor shall be elected for one year, or for whatever time will stagger this election and in that way obviate this constitutional difficulty.

The gist of this is that this motion shall he reconsidered, and the new councilor district be created with the specific provision that the Councilor elected for this district at this time be elected for one year only, and thereafter for a five-year period.

The Speaker: We will have to reconsider the other motion. Dr. Foster moves that the motion creating this new Seventeenth District in the upper peninsula be reconsidered. If we dispose of that motion, the Chair will entertain a motion that the District he created, and in that motion that the first Councilor be elected for a shorter term than five years.

Dr. Garber: I rise to a point of order. A short time ago the Speaker ruled there was to be no new business. Now I want to know if this is not new business, or the creation of new business.

The Speaker: We must keep the interest of the Society going properly, and if we are going to stick to parliamentary rule we can start some new business which is absolutely necessary, and the Chair so rules.

Dr. D. P. Foster: I move that the regular order of business be suspended for the time being in order to consider this motion.

The motion was regularly seconded.

The Speaker: It has been moved that the regular order of business be suspended, and that this motion be taken up. All in favor of the motion say "aye"; contrary, "no." The motion is carried.

Dr. Foster: I move that the motion for the creation of a new district be taken under consideration again.

The motion was regularly seconded.

The Speaker: You have heard the motion. All in favor say "aye"; contrary, "no." That motion is carried.

Dr. Foster: I move that a new councilor district be created, and that the Councilor elected to that District be elected for an indefinite period at the present time in order that the election from the upper peninsula may be staggered so that those two men shall not be elected the same year.

Dr. Christian: It appears to me we are standing on one foot in talking about electing Councilors for one year, and I would like to propose an amendment to Dr. Foster's motion inserting the word "acting" Councilor. Maybe we can get around the Constitution in that way.

The Speaker: Technically, you are still violating the Constitution, because we have no such thing in the Constitution that says acting Councilor.

Dr. Foster: The reason my motion was not stated that the Councilor be elected for one year but for an indefinite number of years is so that his term of office may be selected that no four Councilors shall be elected in any one year. At the present time, I don't know whether there is anything which would give more pertinence to this particular point as to what year would be the best year for this term to expire.

Dr. Baumgarten: Why not assume that the Councilor of this District is deceased, and let the Council, or whoever is called on to appoint a Councilor, appoint one like he would do if one did die.

Dr. Garber: I would like to add to Dr. Foster's suggestion that instead of the word "indefinite," say "an indefinite period not to exceed five years."

The Speaker: Will you restate your motion, so we can get it correct.

Dr. Foster: I stated in my motion that a Seventeenth District be provided for, and that the Councilor elected at this time for that District be elected for a period of years not to exceed five years, in order that a proper period of time might be determined so we will not conflict with the Constitution in having four Councilors' terms expire in any one year.

Dr. G. H. Frace: I second the motion.

Dr. R. H. Baker (Oakland): I would like to offer a suggestion to Dr. Foster's line of thought. Word that motion that a new councilor district be established in the year 1933, with unexpired term of one year. The Councilor to be elected shall serve for the unexpired term of one year. That makes your Councilor for the District automatically elected next year.

The Speaker: We can't do much about this without violating the Constitution.

Dr. Brook: Who shall determine the length of time for which this man shall serve an indefinite period?

Dr. C. E. Dutchess: May I make a suggestion. It seems to me the constitutional tangle could be very easily solved if we simply adhere to the usual practice and elect the Councilor to serve the period as prescribed by the Constitution, and let it be the sense of the meeting (which I am sure would be respected hy the newly elected Councilor) that the Councilor would tender his resignation to the Council to be accepted at their convenience.

Dr. Louis J. Hirschman (Wayne): May I offer a suggestion which will clarify the whole situation. There is no reason why this state society has to arbitrarily state that four Councilor terms expire at one time. If your committee will amend the Constitution to state that not more than five Councilors' terms shall expire at one time you will solve the difficulty. You have seventeen Councilors.

Dr. Corbus: May I suggest that the whole matter be dropped.

The Speaker: The Chair will entertain nominations for the Councilor for the Seventeenth District. We have to go through with that.

Dr. Foster, do you still want to go ahead with your motion?

Dr. Foster: If it is the opinion or the wish of the House of Delegates, I will withdraw this motion or continue with it. I had one object in view, and that was to try to get this matter out of the way.

The Speaker: Dr. Foster is sincere in trying to expedite this whole matter.

Dr. Brook: I move that the matter of the election of a Councilor for the Seventeenth District be referred to the Council for adjustment.

The Speaker: That is out of order.

Dr. Corbus: I would suggest that no action on the Councilor for the Seventeenth District be made; that having the sense of the meeting in regard to the man whom this House would like to have appointed, the Speaker make such an appointment as is commonly done when a vacancy occurs, or rather that the President make the appointment.

The Speaker: Will somebody make a motion to follow out Dr. Corbus' suggestion? Let's clean up this matter.

Dr. Foster has withdrawn his motion. If there is no motion, all the Chair can do is to nominate.

Dr. Julius Powers (Saginaw): There won't be a Seventeenth District, according to the interpretation of what has been done by this House of Delegates, until the Council meets and forms such a District. So I think all of these motions are out of order.

Dr. H. E. Perry (Luce): I understand we passed a resolution here yesterday or this morning authorizing the Council to divide the upper peninsula. The upper peninsula is practically as long as the lower peninsula. It is altogether too big for one man to take care of. It is as far from the Soo to Ironwood as it is from Detroit to Mackinac. I think we should go ahead and elect a man in the western end of the upper peninsula, and I would like to see my motion voted on.

The Speaker: Are there any further nominations?

Dr. Michael A. Gertz (Gogebic): I would like to place in nomination the name of W. E. Tew of Bessemer.

The Speaker: Are there any further nominations? If not, we will proceed to ballot on these nominees. Will the same tellers please act, Drs. Sevey, Insley and Keyport?

Vice Speaker Dutchess took the chair.

The Vice Speaker: If all have voted who wish to vote, the Speaker will declare the ballots closed.

The Secretary: Dr. Manthei has received 57, and Dr. Tew 7, or a total of 64 votes cast out of a possible 67.

The Vice Speaker: The Chair declares Dr. Manthei elected.

The next order of business is the selection of the 1934 meeting place.

The Vice Speaker: If there are no further remarks on the selection of meeting place, we will proceed to ballot. Will the same tellers please serve again?

The Speaker: Has everyone voted? If so, the Chair declares the ballot closed.

The Secretary: Battle Creek 33; Traverse City 16; the Soo 14, giving Battle Creek the majority over the two other contesting cities.

The Speaker: Battle Creek will be your meeting place for the 1934 convention.

Next in order are nominations for the Speaker of the House of Delegates.

Dr. Moll: I desire to place in nomination for the office of Speaker a man who has long taken active interest in your deliberations, a man who is well grounded in parliamentary usage, a man who has demonstrated his ability as a presiding officer, a man who will carry out the high ideals established in practice by his predecessors.

I take great pleasure at this time in placing in nomination the name of genial Henry Luce, formerly of Genesee but now of Wayne. (Applause.)

Dr. Brook: The entire Kent delegation is happy to approve and support the nomination of Dr. Luce.

Dr. Gorsline: I wish for Calhoun County to support Henry Luce's nomination.

The Speaker: Are there any further nominations, gentlemen?

Dr. Ellet: If there are no further nominations, I move that the Secretary be instructed to cast the unanimous ballot for Dr. Henry Luce.

The motion was regularly seconded.

The Speaker: All in favor of the motion say "aye"; contrary, "no." The motion is carried.

The Secretary: Your Secretary does so cast.

The Speaker: The Chair declares Dr. Luce elected as Speaker of the House.

Next in order are nominations for the office of Vice Speaker.

Dr. Catherwood: I wish to place in nomination the name of a man from the central portion of the state, Dr. Frank Reeder of Flint, Genesee County. I am sure Henry Luce could have no more able background and assistance than that of Dr. Reeder. (Applause.)

Dr. G. H. Southwick (Kent): It is a pleasure to support Dr. Reeder's nomination.

The Speaker: Are there any other nominations?

Dr. C. S. Ratigan (Wayne): I move that nominations be closed, and the Secretary be instructed to cast the ballot for Dr. Reeder.

The motion was regularly seconded.

The Speaker: You have heard the motion that nominations be closed. All in favor of the motion say "aye"; contrary, "no."

The Secretary: The Secretary does so cast.

The Speaker: The Chair declares Dr. Reeder elected to the office of Vice Speaker.

Is there any other unfinished business?

Dr. Karl Brucker (Ingham): Mr. Speaker, I would like unanimous consent to introduce a resolution regarding the death of one of our members.

The Speaker: The Chair will grant you the floor for that type of resolution.

Dr. Brueker presented the resolution with regard to the death of Dr. John G. Rulison.

DR. JOHN G. RULISON

Mr. Speaker and Delegates to the Michigan State Medical Society, Gentlemen:

The mysterious operation of Divine Providence has again invaded our ranks and taken from us one of our finest members and most noble men in the person of Doctor John G. Rulsion.

Words cannot express our feeling in Ingham County and Lansing over the tragic and sudden loss of one so beloved by us all, as a friend, practitioner of medicine in its finest and most ethical manner and as a husband and father.

"Jack," as we all affectionately called him always battled for the right. He was always to be found trying to help and conciliate. In him, the young doctor always had a friend.

He had served his county society as its president. He always worked hard for organized medicine. He had served his city as a member of the City Council for several years. But probably his greatest service to you and to me was in the last session of the legislature, when, as one of our representatives from Ingham County and as Chairman of the Public Health Committee of the House of Representatives, he battled for the rights of medical practice, your rights and mine, and without doubt hastened his premature demise. Public servants such as John Rulison are rare. Medicine can ill afford to lose them.

Be It Resolved, that this House of Delegates, representing the Michigan State Medical Society in convention assembled do express our grief at the loss of so valuable a friend, doctor and public servant.

Be It Further Resolved that this resolution be published in the Journal and a copy sent to the bereaved family.

Karl B. Brucker.

Dr. Brucker: I would like to say that Jack Rulison, whom many of you knew, was nominated as a representative in the legislature last fall as a Democrat, and at the last minute, regardless of party and because of our affection for him, the Medical So-

ciety of Ingham County and the Auxiliary went to bat and carried on a telephone campaign. Jack Rulison himself told me he thought 5,000 telephone calls went out for him and put him over. That Dr. Robb, conforms with your suggestion of what we ought to do. We put Jack Rulison over, and he did the job, worked hard, and died.

Public servants such as John Rulison are rare. Medicine can ill afford to lose him.

I move the adoption of the resolution.

The motion was supported by several.

The Speaker: You have heard this resolution, and and Dr. Brucker has moved its adoption.

All in favor say "aye." The motion is carried.

Dr. Ellet: May I be allowed to introduce an extemporaneous resolution at this time?

The Speaker: You may if there is no objection on the part of the assembly.

Dr. Ellet: On behalf of the members of the House of Delegates, in which the whole House will concur, I offer our thanks and appreciation to a gentleman who has been with us for the past several years.

Because of my feeble voice, I am not able to go ahead and describe this gentleman. I am going to call upon a specialist who is familiar with his name, and who will give us the rest of the story.

Dr. Hirschman: Mr. Speaker, at the request of several I beg your indulgence and the privilege of the floor to express the appreciation of the membership of this and five former Houses of Delegates to a man who has been its presiding officer.

Speaker Pyle, I want to say to you that never in the history of any deliberative assembly has there been such a unique presiding officer. (Laughter.) I want to say to you, sir, that I have never seen a deliberative assembly whose presiding officer was so gentle, so kind, so charitable and so courteous to all of us who have erred in parliamentary procedure. Your interpretation, sir, of the various complicated, devious matters which have been brought to the attention of the House has been, I think, unanimously approved. You have injected into the hard and serious duties of your office a vein of humor which I believe, sir, is unsurpassed.

At the request of several of our colleagues, and from the depths of my own heart, I wish to thank you for making arduous duties very, very pleasant.

The audience arose and applauded.

The Speaker: I surely thank you for your kind remarks.

This has been a great education to me. Up to a few moments ago, I held four executive positions in medical circles, the presidency of our local society, the Chief of Staff of the local hospital, the Speakership of this House, and also the presidency of a local health council. Often they have said about me, "We will make that fellow Speaker, then he can't talk all the time."

It has been a great lesson. I have learned to listen, and this is a good place to learn to listen. But I want to thank you again for the education you have given, for the courtesy you have shown me, and the contacts I have had through these five years have been most pleasant. In all my stormy career, nothing has been more pleasant than that.

I bespeak for Dr. Luce the same courtesy at this time. I would like to have Dr. Luce come forward, and I will pin the badge of office on the lapel of his coat.

The audience applauded as The Speaker pinned the badge of office on the incoming Speaker and handed him the gavel.

The Speaker: Mr. ex-Speaker, Members of the House of Delegates, Ladies and Gentlemen: I thank you on my behalf and on behalf of my good friends. I trust that at the end of my tenure of office I may measure up to the standard that has been set by our dear friend, Henry Pyle. (Applause.)

Is there any other business to come before the assembly, gentlemen?

On motion regularly made and seconded, it was voted to adjourn sine die at ten-ten o'clock.

Attest: F. C. Warnshuis, *Secretary.*

REGISTRATION AT 113TH ANNUAL MEETING. SEPTEMBER 11 TO 14, 1933

Members by Counties

Alpena	2
Barry	5
Bay	9
Berrien	4
Branch	2
Calhoun	28
Cass	6
Chippewa-Mackinac	1
Clinton	4
Dickinson-Iron	1
Eaton	9
Genesee	30
Gogebic	1
Grand Traverse-Leelanau	2
Gratiot-Isabella-Clare	11
Hillsdale	5
Houghton-Baraga-Keweenaw	1
Ingham	32
Ionia-Montcalm	16
Jackson	11
Kalamazoo-Van Buren-Allegan	58
Kent	177
Lapeer	4
Lenawee	4
Livingston	1
Luce	1
Macomb	3
Manistee	8
Mason	2
Mecosta-Osceola	10
Midland	1
Monroe	2
Muskegon	34
Newaygo	6
Northern Michigan	5
Oakland	10
Oceana	2
Otsego-Montmorency-Crawford-Oscedo-Roscommon-Ogemaw	1
Ottawa	20
Saginaw	9
Shiawasee	6
St. Clair	6
St. Joseph	2
Tri	2
Tuscola	2
Washtenaw	28
Wayne	109
Guests, Individual	18
Exhibitors	37
Ladies	225
Total	979

SOCIETY ACTIVITY

SPEAKER LUCE

Dr. H. A. Luce of Detroit succeeds Dr. H. J. Pyle as Speaker of the House of Delegates. The Speaker becomes a full member of the Council and of the Executive Committee of the Council. This is as it should be, for a presiding officer of our most important and authoritative body—the House of Delegates—labors under a handicap unless he be intimately familiar with all of the Society's activities.

Dr. H. A. Luce, Speaker of the House of Delegates; Past President Wayne County Medical Society; Second term, Chairman Board of Trustees of the Wayne County Medical Society; Delegate to A. M. A., 1931-1935.

Dr. Luce has reflected an intense helpful interest in medical activities, eager to accept responsibility and faithful in the performance of his duties and inspired by but one thought—what is best, what is right.

He is a young old-timer who believes that the practice of medicine is a service to humanity and not a business. That the good of the public must always be the medical profession's first consideration. He believes that in the best types of government and in all human activities, each individual, insofar as possible, must work out his own problem, the while feeling a sense of obligation to the whole. He is a firm believer that seventy-five per cent of the practice of medicine can be efficiently performed by the general practitioner. He is frankly opposed to those individuals in the medical profession who depend upon corporations, government positions, etc., that interfere with the family physician-patient relationship. He believes that well organized medical societies constitute the best security to the public for sound medical care. Withal he enjoys the friendship of those who differ in opinion with him, believing that open, frank discussion leads to truth.

Dr. F. A. Reeder of Flint, as Vice-Speaker, will be a capable aid to the Speaker. He succeeds Dr. C. E. Dutchess of Detroit.

THIS ISSUE IS IMPORTANT

This issue of the JOURNAL is the most important and most informative issue of the year. Every member should devote sufficient time to read it carefully. Especially is it urged that you read:

1. Minutes of the House of Delegates.
   - (A) President's Address.
   - (B) President-Elect's Address
   - (C) Council's Report
   - (D) Father Schwitalla's Address
   - (E) Reference Committee's Reports
   - (F) Minutes of the General Session
   - (G) Economics Committee's Report
   - (H) Report of Preventive Medicine Committee.
2. Minutes of the Executive Committee.

These will impart to you that which is being accomplished in your behalf. They will answer many of your questions as well as provide you with guiding facts.

PREVENTIVE MEDICINE COMMITTEE'S STATE CONFERENCE—NOVEMBER 15

At the annual meeting, Dr. L. O. Geib, chairman of the Committee on Preventive Medicine, presented a plan for state activity along lines of the Wayne County preventive medicine program. This report was approved and the committee directed to initiate its program.

In general it may be stated that the objective is to return to the physician the preventive medical practice that is now being conducted in clinics operated by health departments and health officers and school physicians. To bring about toxoid immunizations, tuberculosis prevention and venereal disease treatment by family physicians. This plan is in successful operation in Detroit and can be extended to the entire state.

The plan is—and County Secretaries and County Committees should well note—*to hold a one day session in Detroit on Wednesday, November 15.*

The present plans are to have a full day and evening program with postgraduate conferences in preventive medicine scheduled for the morning, a meeting of the Public Health Committee of the Wayne County Medical Society at noon and during the afternoon a description of the work being

carried on by the Wayne County Medical Society in Detroit and the W. K. Kellogg Foundation in the three rural counties. In the evening we expect to have present several hundred of the physicians who are cooperating in the application of the plan in Wayne County. Through this avenue we expect to be able to stimulate an interest throughout the state in the program as outlined by our Committee on Preventive Medicine at the annual meeting held in Grand Rapids.

County Secretaries have received a communication requesting the appointment of County Committees on Preventive Medicine. The request was also made to send the name of the local chairman to the State Secretary without delay in order that notice of this conference could be sent him so that he could attend. If this has not been complied with, please do so at once.

This is an outstanding activity meriting the coöperation of every member.

MINUTES OF 113TH ANNUAL MEETING

This issue contains the minutes of our annual meeting. It imparts informative and important actions that concern every member and every county unit. The suggestion is made that at the next county meeting you call upon your delegates to review these actions and acquaint your members with their portent and evoke a discussion. Then initiate county activity for the furtherance of the work in your county.

NEW COUNCILORS

Because of the largeness of its area the upper peninsula has been divided into two Councilor Districts. The counties east of a line drawn from Marquette to Escanaba will be known as the 12th District. Those counties west of that line will constitute the new 17th District.

Dr H. E. Perry

Dr. W. A. Manthei

At the Grand Rapids annual session, Dr. H. E. Perry of Newberry was elected Councilor of the 12th District and Dr. W. A. Manthei of Lake Linden, Councilor of the 17th District.

This election adds to the Council two splendid types of men. Their advice and good judgment will be helpful to the entire Council.

LEGISLATION

President Le Fevre has appoinetd a legislative committee. Their membership as well as those of all standing committees are imparted in the front advertising section of the Journal.

Michigan's problems in regard to legislation are to receive early consideration and a program of policy and activity will be formulated by the committee and the council.

County Societies will be requested to conform to that program in order that there may be a unity of action and effort. Pending the imparting of these policies and activities County Societies are requested to refrain from adopting any definite procedures or to initiate any fixed action.

If we are to record unity of action it must be along the lines initiated and supervised by the Legislative Committee. If we are to prevent repetition of the experiences of the last session with its untoward results and unsuccessful representations there will be required a realinement of our avenues of approach and the adoption of different methods of procedures. There will be need for new contacts and new representation. All this will be accomplished by the Legislative Committee and when their plans are imparted official information will be sent to each county society with the request that all local activity conform to the adopted plans.

Experience has been a wise teacher and the recent experience will not be repeated if every county unit will subscribe hearty support to the plans that will govern the future.

PUBLICATION COMMITTEE

By reason of the resignation of Dr. J. D. Bruce as a member of the Council, Chairman Corbus has appointed Councilor F. A. Baker as acting chairman of the Publication Committee and Councilor A. S. Brunk as a member of the committee.

The permanent committee will be designated at the January meeting of the Council.

COUNTY MEETINGS

Scientific papers, clinical case reports and clinical observations must continue as foremost features in county society meeting programs. The program committee should inspire its *local members* to participate in these programs, present these papers and enter into their discussion. That is a function that should be encouraged.

Occasionally an invited guest should be made a feature—but only occasionally. Local members should be given preference. When guest speakers are desired the State Secretary's office will be ever willing to assist program committees in securing desirable and capable clinicians. This assistance has been rendered for years and continues to be available. Utilize it whenever such assistance is desired. The State Secretary will be pleased to send program committees a list of recommended clinicians and arrange for their attendance at your meetings. The expenses of these speakers are to be defrayed by the local society.

County societies are urged to call upon the office of the State Secretary whenever it is felt that assistance or information is desired.

ADVERTISING

A schedule of JOURNAL advertising rates will be found in the advertising section of this issue. Turn to it.

In your community there are firms who might well use JOURNAL space to their profit and increase of business. They would undoubtedly do so if called upon by some member. Will you be that member?

You, too, will profit. A commission of 15 per cent will be paid. Sell one page of space for one year and forty-five dollars will be paid you. Here is an opportunity to earn some ready money. Why not start and see what you can do?

SCIENTIFIC EXHIBITS

The following is a report of the Scientific Exhibit of the Michigan State Medical Society held in Grand Rapids September 12 to 14, 1933.

Dr. Henry D. Chadwick, using material from the Herman Kiefer Hospital and William H. Maybury Sanitarium, presented a series of films illustrating acute childhood tuberculosis with its differentiation from pneumonia. This series was particularly valuable since it had many follow-up films on the cases over a period of several years.

Drs. Gaikema and Nesbitt of the Sunshine Sanitarium, Grand Rapids, Michigan, showed a series of films of tuberculosis, illustrating the diagnosis and treatment, the effects of thoracoplasty and also a series of primary lung carcinoma showing their diagnosis and progress.

Dr. Vernon Moore of St. Mary's Hospital, Grand Rapids, Michigan, presented a collection of x-ray films showing a variety of conditions such as foreign bodies, bone cysts, aneurisms, calcification of the head of the pancreas, diverticulum of the bladder, etc.

Dr. Fred Hodges of the Department of Roentgenography, University of Michigan,

Ann Arbor, Michigan, showed a collection of x-ray material for teaching purposes illustrating encephalograms, ventriculograms, oxycephaly, mastoiditis, sinusitis, arthritis, gastro-enterology, etc.

Dr. G. G. Stonehouse, Butterworth Hospital, Grand Rapids, Michigan, presented an excellent series of intravenous urograms.

Drs. Fred P. Currier and David B. Davis of Grand Rapids, Michigan, showed some interesting moving picture films representing the neurological disturbances due to some of the filtrable virus infections and some other types of neurological disturbances.

The Grand Rapids Health Department, with the coöperation of the Michigan Department of Health, showed an interesting series of chart displays of public health service and control of communicable diseases.

Drs. L. J. Schermerhorn and Pearl Kendrick presented an interesting practical method for the early detection of pertussis cases showing the cough plate technic and its use in the control of the disease.

Drs. Paul Kniskern and A. H. Edwards, representing the City of Grand Rapids, displayed a series of charts representing the organization and functioning of medical relief service in the City of Grand Rapids.

The Grand Rapids Anti-tuberculosis Society presented a collection of chest films of the examination of school children and a series of charts showing the functioning and organization of their society. A large wall poster gave a preview of the details of the Christmas seal stamps.

Dr. J. D. Brook, representing the Kent County Health Department, displayed a series of graphs and charts portraying the work of immunization by toxoid, physical examinations of children and the disease prevention work carried out by the county.

Dr. William A. Evans of the X-ray Department of Harper Hospital, Detroit, presented a large series of x-ray studies, photomicrographs in color showing the technic of deep therapy with results and a statistical study of late results, also a series of more superficial lesions treated by the so-called hypermassive technic.

Drs. Max Ballin and Plinn Morse, of Harper Hospital, Detroit, showed an interesting and original set of studies in parathyroid disease illustrated by photographs and charts showing the relationship of certain skeletal lesions to the function of the parathyroid gland and the results following their extirpation.

Dr. Alden Williams of Grand Rapids, Michigan, presented a series of photographs before and after representing the results of the treatment of superficial skin neoplasms by radiation therapy.

Dr. Claire L. Straith presented a series of photographic studies with models of the technic and results of plastic surgery.

Dr. L. M. McKinlay, Grand Rapids, demonstrated a model showing the anatomy and physiology of bladder function showing the action of sympathetic and parasympathetic nerves. This was operated and lighted by electricity. Also a graph recording device to identify and diagnose various disturbances in bladder function, separating organic from functional types and showing the effects of various drugs upon nerve action.

Dr. Hans A. Jarre and Dr. Robert E. Cuming of Grace Hospital, Detroit, showed an interesting series of x-ray studies of peristalsis of the kidney pelvis by multiple x-ray exposure technic. This shows the advantage of a series of films taken in rapid succession demonstrating the movement of renal pelvis and ureter over the single picture technic. This series demonstrated the changes in mobility of the urinary tract produced by early chronic and late infections.

The Committee on Awards was impressed by the scope, originality and diversity of many of these exhibits. The first award was given to Dr. L. M. McKinlay, the second to Drs. Ballin and Morse, and the third award honors were divided between Drs. William A. Evans and Hans Jarre.

Wm. A. German, M.D.,
Director of Scientific Exhibit.

OFFICIAL APPOINTMENTS

Just as the Journal was going to press the following official appointments were made:

Speaker Luce has appointed the following committees:

Committee on Preventive Medicine.—L. O. Geib, Chairman, Detroit; C. T. Ekelund, Pontiac; Roy Holmes, Muskegon; G. M. Byington, Battle Creek; J. J. O'Mera, Jackson; C. R. Keyport, Grayling; L. F. Foster, Bay City; F. B. Miner, Flint; Milton Shaw, Lansing.

Committee on Medical Economics.—W. H. Marshall, Flint, Chairman; F. A. Baker, Pontiac; L. G. Christian, Lansing; Bert U. Estabrook, Detroit; Stuart Pritchard, Battle Creek; I. W. Greene, Owosso; Phil Riley, Jackson.

President G. L. Le Fevre has made the following appointments:

For Councilor (to complete the unexpired term of Dr. J. D. Bruce, resigned)—Dr. Howard H. Cummings, Ann Arbor.

Legislative Committee.—James B. Bradley, Chairman, Eaton Rapids; L. B. Christian, Lansing; Grover C. Penberthy, Detroit; Robert J. Douglas, Muskegon; Phil Riley, Jackson.

MINUTES OF THE OCTOBER MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

1. The Executive Committee of the Council met in Ann Arbor at 4:00 P. M. on October 4, 1933, with the following present: Burton R. Corbus, Henry R. Carstens, Henry Cook, C. E. Boys, H. A. Luce, J. D. Bruce, President George L. Le Fevre, President-elect Richard R. Smith, Editor J. D. Dempster, Secretary F. C. Warnshuis.
2. The Secretary presented a detailed statement of the finances of the Society and reported upon the delinquent members. Upon motion of Boys-Carstens, the Secretary was directed to send an individual letter to each delinquent urging him to continue his membership.
3. The Secretary reported a communication from the Oakland County Medical Society relative to dues that are impounded in the bank. The Secretary was directed to accept the offer of 45 per cent in payment and to defer until the January Council meeting the matter of final adjustment. Upon motion of Carstens-Boys the above action was approved.
4. The Secretary presented a communication from the Secretary of Wayne County Medical Society reporting dues of $673.80 and requesting credit for this amount upon the indebtedness of the State Society to Wayne County. Upon motion of Boys-Cook this offset was approved.
5. Councilor Bruce tendered his resignation to the President as a member of the Council and requested its immediate acceptance for the reason that his University duties are going to consume an exceptionally large portion of his time during the ensuing year. There was a universal expression of regret at Dr. Bruce's termination of his official relationship with the Council and that his helpful services and constructive assistance could no longer be available. In accepting the resignation, President Le Fevre summarized the sentiments that were expressed. The President stated that after consideration he would announce the appointment to fill the unexpired term of Councilor Bruce.
6. President Le Fevre nominated the following Committee appointments:
   Maternal Welfare—Dr. D. C. Cameron, Alpena; Dr. F. W. Garber, Muskegon; Dr. Angus McLean, Detroit; Dr. G. A. Kamperman, Detroit; Dr. A. M. Campbell, Grand Rapids.
   Radio Committee—Dr. W. J. Stapleton, Jr., Detroit; Dr. R. H. Alter, Jackson; Dr. L. F. Foster, Bay City.
   Joint Committee on Public Health Education—Dr. H. E. Randall, Flint (re-appointed).
   Upon motion of Boys and supported by Cook the President's nominations were confirmed.
   The President stated he would defer until the next meeting of the Executive Committee the appointments of the remaining standing committees of the Society.
7. Dr. Luce, Speaker of the House of Delegates, conferred with the Executive Committee relative to the appointment of the Committee on Economics and the Committee on Preventive Medicine. At the end of the conference Dr. Luce announced that he would make his appointments in the very near future.
8. The Secretary presented a communication from the Hyslop-Strange Clinic of Mt. Pleasant, requesting endorsement of their application for a federal loan for the construction of a new hospital building. Upon motion of Cook-Luce the Secretary was directed to secure information from the County Medical Society and the Councilor of the District and if favorable recommendations were forthcoming the endorsement should be granted.
9. The Secretary presented Bulletin No. 7 of the Federal Emergency Relief Administration, together with a statement to be issued by the State Medical Society. After discussion when certain amendments were made, upon motion of Bruce-Carstens, the following statement was approved and ordered released to the profession and to the public:

FEDERAL EMERGENCY RELIEF

The Michigan State Medical Society endorses the general policy announced in Bulletin No. 7, issued by the Federal Emergency Relief Administration in which recognition is given to preservation and continuation of the long established relationship of family and physician.

The Michigan State Medical Society expresses as its opinion that by reason of existing local conditions that prevail and are peculiar to each county it is impossible and not feasible to formulate and initiate a program that is applicable to the entire State for the providing of medical services and care to those families and individuals entitled to emergency relief and who are at the time that medical relief is required the recipients of relief in shelter, food, fuel and clothing.

The Michigan State Medical Society recommends that each County Relief Commission confer with and join with the local County Medical Society for the purpose of formulating and instituting a plan and regulations that will provide adequate medical care for the County and which will meet the particular problems in that County.

The Michigan State Medical Society, through its Executive Committee which is authorized to act for the entire membership, recommends to the State Emergency Relief Commission and its State Director and to County Relief Commissions and their Directors that the services of individual physicians or the services of the combined membership of a County Medical Society be utilized upon an agreed remuneration basis in preference to any plan that features a contract rate with one physician or a small number of physicians on a salary basis in order that there be insured to the patients a higher type of medical service and care. Such a policy is highly advisable for in allowing a free choice of physicians the family-physician relationship remains intact and the availability of physicians to administer to all the medical needs of a county is insured and the County's health interests are protected.

The Michigan State Medical Society records its willingness to subscribe its services in aiding to meet medical emergency relief and proposes to assume its fair share of responsibility. To that end we recommend to members of County Medical Societies that they agree to a fee

schedule that will recognize illness and disability as an appropriate charge upon available funds for emergency relief.

The State Society assures the State Commission of its readiness to confer and advise with them in all their problems related to medical care and relief.

The Executive Committee
Michigan State Medical Society

Approved Oct. 4, 1933
F. C. Warnshuis, *Secretary*

10. Upon motion of Boys-Luce, Doctor W. H. Marshall was designated as the Executive Committee's contact man with the State Emergency Relief Commission and the Executive Committee constituted as the Advisory Committee of the State's Emergency Relief Commission.
11. Doctor Marshall appeared before the Executive Committee and discussed its proposed program of activity for the coming year. There was a lengthy discussion in regard to financing committee activities and field work. Upon motion of Luce-Carstens the Secretary was directed to prepare a slip sheet which is to be inserted in the Survey Report, imparting the action of the House of Delegates upon the recommendation made by the Committee on health insurance. The Secretary was further instructed to send this slip sheet to all out-of-state individuals who have received a copy of the Survey Report.

    Upon motion of Luce-Boys, the Executive Committee approves the acceptance of funds from all sources from which they are obtainable, subject to final acceptance and approval of the Executive Committee of the Council, for the purpose of defraying the expenses of the Economic Committee in the furtherance of its study and investigations as approved by the House of Delegates.
12. The Secretary announced that he had suggested to Dr. Luce that a Michigan State Medical Society Night be included in the program of the Wayne County Medical Society. Dr. Luce stated that the matter had been taken up with the Program Committee of the Wayne County Medical Society and requested the Executive Committee to designate the date for its January meeting. Upon motion of Boys-Carstens, it was determined that the Mid-Winter Meeting of the Council would be held in Detroit on January 15.
13. The following members of Council Committees appointed to work with the elected Chairman were approved:

    County Society Committee: Dr. C. E. Boys, Dr. Thomas P. Treynor, Dr. Paul R. Urmston.

    Financial Committee: Dr. Henry R. Carstens, Dr. Henry Cook, Dr. T. F. Heavenrich.

    The Executive Committee adjourned at 9:30 P. M.

(Signed) F. C. Warnshuis,
Secretary.

SIMILAR ACTION BY ALL MEMBERS REQUESTED

By the way, the Petrolagar detail man was in this afternoon and I told him I could not use his products unless his Company advertised in the Michigan State Journal. He said they had spent so much money on the Exhibit at the World's Fair they had no money for state journals. I told him that was no way to help the doctors who recommended their products. I told him, also, to write his company that a doctor in the Whitney Building would not use his product unless they advertised in our Journal. So that's that—to help the Business Manager.

The Standard Oil Company Branch here in Detroit are requiring all the new men hired on account of the NRA to take their examinations at ——— Hospital and pay $3.50 cash to the hospital. We are starting a fight that may end in the doctors boycotting the Standard Oil Company. These are strenuous times.

Most sincerely,
A Member.

Request all members to make similar representation to detail men calling on you.

COUNTY SOCIETIES

THE GRATIOT-ISABELLA-CLARE COUNTY

The September meeting of the Gratiot-Isabella-Clare County Medical Society was for the members and their wives and was held September 21, in the Wright Hotel, Alma. Twenty-nine had dinner together, after which President Carney called the meeting to order and introduced Dr. Richard R. Smith of Grand Rapids, who gave a Travelogue on South America. This was enjoyed by everyone present.

President Carney then called the meeting to order for the regular business. Minutes of the June meeting were read and approved. Dr. B. J. Graham reported a case of failure of the foramen ovale to close and showed the greatly enlarged heart from a child who had lived for two years with this congenital condition.

President Carney asked for suggestions for future programs. Doctors Budge and Becker said they would like to hear something on pediatrics.

E. M. Highfield, M.D., *Secretary.*

KALAMAZOO

About ten members of the Academy enjoyed a round of golf at the Otwellegan Country Club on the afternoon of June 20 as guests of our president, W. R. Vaughan.

A dinner was held at the clubhouse which was well attended by the members and their wives.

Following the dinner the regular monthly meeting was called to order by the president, W. R. Vaughan.

The minutes of the previous meeting as printed in the Bulletin were accepted.

Approval was given to Miss Florence Fiske representing the Michigan Tuberculosis Association to obtain material from the A. M. A. for radio broadcasting.

Drs. Gregg and MacGregor moved that Dr. E. J. Nook be elected to membership. Motion carried.

Drs. Charles Osborne and Collins moved that Dr. Joe Gilding be elected to membership. Motion carried.

Drs. Westcott and Shackleton moved that Dr. M. N. Southworth be elected to membership. Motion carried.

Drs. MacGregor and Gregg moved that Dr. Paul Fuller be elected to membership. Motion carried.

Drs. MacGregor and Westcott moved that Dr. F. M. Boothby be elected to membership. Motion carried.

Drs. Shephard and Bennett moved that the Secretary write to Senator Upjohn expressing our appreciation of his efforts in the legislature in behalf of the medical profession during the past session. Motion carried.

Prof. John H. Muyskens of Ann Arbor then gave his paper of the evening entitled "The Tongues of Men."

Speech is an index of the condition of tissue; it was not always, however, considered in this light. Periods in medicine arose first in superstition, then description, empiricism and finally laboratory methods or objective knowledge are now the vogue. This is indeed the history of all values.

Gods, half gods, nobles and lords occupied literature but finally disappeared and now the common people are the main content.

The first stage of langnage development was that it was a direct gift of God. The second stage was that of the family languages but it was finally thought that speech is a biological process and that is what is believed today. It must be studied in that light among the animals and even among the flora.

Prof. Muyskens went through the laboratories and did a great deal of experimental work himself and proved that the fundamental movements of speech are chewing, sucking and swallowing. There is a shift then from the idea that speech is a mental process to the fact that it is a sine qua non of biology.

Sucking takes place in utero else how could there be meconium? The rhythm of speech is present six weeks after birth, at three months the child is able to produce vowels. At three years of age the speech organism is normally fully developed. There should be no speech defects if there is no tissue disturbance and correction of these defects is obtained by training the child in the fundamental acts of chewing, sucking, and swallowing.

The past legislative session is now a matter of history but it may be noted that the Osteopathic Bill, which would give them full rights to practice medicine was defeated and the Chiropractors were allowed to have their own board but confine their practice to Chiropracty.

It is assumed that the Osteopaths spent a considerable sum of money in trying to have their bill passed but the efforts of the medical profession, and particularly the State Medical Society, influenced the Governor and Legislature that the public welfare could not permit such a bill to pass.

The benefits of such efforts are reaped by every member of the profession so is it not fair that you pay your dues as promptly as possible and assume your share in the "sowing" as well as the "reaping."

Your secretary has been asked by the Council to make a canvass of the members relative to private donations to enable the continuation of the valuable work of the Committee on Survey of State Medical Services and Health Agencies. The Council has approved their further program of study.

The society has already expended some $11,000 on this work but further funds are unavailable. The House of Delegates directed the Council to solicit voluntary subscriptions from the membership as the work of this committee is deemed to be vital to the future economic welfare of every doctor.

You may send your subscription to the Secretary and it will be remitted promptly to the Council. I have received a few copies of the detailed report of the Committee and if any member desires to read this report I can see that one is placed in your hands.

By the consent of the Executive Committee the following letter was sent to the State Board of Education. By the time this Bulletin goes to press the investigation will have been completed and a report will then be available.

"The Executive Committee of the Kalamazoo Academy of Medicine is of the firm belief that nurses are not qualified to diagnose and prescribe to sick people. We also believe that physicians in the employ of our State Teachers College should be members of the local and national Medical Society. For the past several years these conditions have not existed at Western State Teachers College.

"We, therefore, respectfully petition the Michigan State Board of Education to investigate these conditions as pertaining to the Western State Teachers College and favor the Kalamazoo Academy of Medicine with a written report of their findings."

R. J. Hubbell, *Secretary.*

MASON-LAKE, MANISTEE-OCEANA

Mason, Lake, Manistee and Oceana county societies are holding combined meetings every two months in order that we may have a crowd large enough so that we may have a good speaker.

On Thursday, September 21, the four county societies met at the Hotel Stearns in Ludington at a six o'clock dinner. Following, we heard Dr. C. Boys of Kalamazoo talk on goiter. He then presented four reels of Alaskan pictures which he had taken.

About thirty doctors and ten of the wives were present and a very enjoyable evening was spent in listening to Dr. Boys.

L. W. Switzer, *Secretary.*

SAINT CLAIR COUNTY

The first regular meeting of Saint Clair County Medical Society was held Tuesday, October 3, 1933, at Port Huron Hospital. Supper was served to thirty physicians and two guests at 6:30 P. M., after which the meeting was called to order by President D. J. McColl. The meeting was open to every physician of the county whether or not he was a member of the society. About ten non-members attended, many of them from outlying towns of the county.

Doctor Heavenrich opened the program by reading a letter from the Secretary of the Crippled Children's Commission of Michigan and after a few remarks anent the subject of medical care of this class of indigents passed, around the meeting, a fee schedule which this organization proposed. Judge C. R. Black of the Probate Court of Saint Clair County then read excerpts from new laws relative to the medical care of indigent minors. The Judge explained that he already had the power to send adults to the local hospital for medical care but that if the local hospital would qualify by obtaining the sanction of the Crippled Children's Commission and the American College of Surgeons and could effect an agreement with the Board of Supervisors of the county that this class could also be sent to the local hospitals of the county. The Judge believes such an arrangement would be of great benefit not only to the physicians of the county but also to the parents of afflicted and crippled minors. He pledged the profession the earnest coöperation of his Court providing the interests of the taxpayer would be protected. He advised the whole body of physicians of the community appear before the supervisors and convince them of the advantages of caring for the indigent in local rather than state hospitals. He discussed the new Federal Relief Act but stated he did not know how it would function.

Mr. Van Valkenburg of the Board of Auditors of Saint Clair County discussed the subject of medical treatment for the indigent and advised the Society to address a letter to the Board of Supervisors, through the county clerk, relative to the care of indigent medical cases. This letter, so he stated, would then be referred to the Health Committee of that Board for action and recommendation. He also advised the profession to call upon Mr. Boyce,

County Chairman of the National Relief Organization. Mr. Van Valkenburg said that as he understood the matter medical fees would be allowed physicians under the National Relief Act for short periods of care furnished indigent patients at their homes but that no fees for hospital care are allowed.

Dr. Heavenrich lauded both Judge Black and Mr. Van Valkenburg for their coöperation with the medical profession and extended to them a vote of thanks from the Society. He then made a motion, which was duly supported, that a committee of five be designated by the President to meet with the Board of Supervisors and draw up an agreement relative to the care of indigent afflicted and crippled minors at the local hospitals on the county, to arrange a fee schedule and have full power to act in the whole matter at the coming session of the Board of Supervisors on October 9. After a full discussion the motion was carried and the president designated the already appointed Committee on the Medical Care of the Indigent to take over the matter with the exception that Doctor Heavenrich be relieved from the committee and Dr. J. F. Waltz of Capac be substituted in his place.

Dr. C. F. Thomas spoke relative to the number of surgical operations performed gratuitously during the last year by the surgeons of the Society and of the risk the surgeon took when he did this work. He stated that, in all, 154 operations were performed for county indigents of which seventy-four were acute emergencies and eighty were chronic cases. Besides this there were fifty-eight indigent accident cases treated. Dr. Thomas believed that the committee to take up the matter with the supervisors ought to fight for adequate remuneration and recognition of the splendid service the medical profession were rendering the poor of the community. He did not believe the committee should take anything the supervisors saw fit to offer. Dr. Heavenrich did not wholly agree with Dr. Thomas, believing that the profession should not approach the Supervisors "with a chip on our shoulder." Dr. Heavenrich thought the present economic crisis might serve as a benefit to the local physicians if they could effect an agreement with the supervisors which would be an entering wedge in obtaining permanent arrangement for the medical care of the indigent at home rather than elsewhere. Dr. Attridge cited the example of Washtenaw County in their arrangement with St. Joseph's Hospital at Ann Arbor for the care of the county indigent and stated that the plan had worked very well. Dr. Heavenrich disputed this point stating that it had worked well for the hospital but not for the physicians of Washtenaw County.

Dr. A. L. Callery made a brief but very comprehensive report on the July and September meetings of the State Society. To conform with the action of the State Society a Committee on Medical Economics, consisting of Drs. A. L. Callery, chairman, A. B. Armsbury and C. F. Thomas, was appointed to take the place of the present Committee on Public Relations.

Dr. D. J. McColl, president, then asked the Society to grant to its officers the power to fix the future meeting place of the Society for the balance of the present year. The permission was granted without a record vote.

Dr. J. C. S. Battley arose and made a short report on the Boy Scout work, stating that it was the desire of the Scout executive that each recruit be given a physical examination on a designated form and that a physician be designated for each of the local troops to act as instructor in first aid and as medical advisor in general. Dr. Battley stated that the committee believed a fee should be charged for the medical examination and after a discussion it was decided to wait until a sample blank form be presented to the Society before an agreement would be made as to the fee, if possible, at the next meeting.

Dr. D. J. McColl, president, announced that Dr. Carl Camp of Ann Arbor would be our guest at the meeting of October 17 and would speak on some neurological subject of interest to the general profession. Dr. Heavenrich announced a district meeting at Lapeer on October 12. Supper would be served at the Lapeer Home and Training School at 7 P. M. and be followed by a fine program. He urged that as many attend as possible.

Dr. A. L. Callery presented the following resolution on the death of Dr. Isaac Bowden, a member of our Society:

Whereas, God, The Great Physician, has, in His infinite wisdom, seen fit to remove from our midst our esteemed and worthy colleague, Dr. Isaac Bowden.

Be it therefore resolved, that we, the members of Saint Clair County Medical Society, extend to his bereaved family our heartfelt sympathy in their grief and loneliness, and

Be it further resolved, that a copy of this resolution be transmitted to his family and spread on the minutes of this Society.

The resolution was adopted and the meeting adjourned.

George M. Kesl, *Secretary.*

SEVENTH DISTRICT CONFERENCE

A joint meeting of the counties of the Seventh Councilor District was held at the Lapeer Home, as guests of Dr. R. L. Dixon.

Sixty physicians from Huron, Sanilac, Lapeer and Saint Clair Counties were in attendance. After an excellent repast served by some of the girls of the institution, and served with all the grace and finesse of the best paid servants, we listened to very interesting papers by two of Grand Rapids' leading men.

Dr. Joseph Whinnery, Jr., gave an excellent résumé of "Thrombo-Angitis Obliterans," with reports on a case. His paper was very well presented, with lantern slides, and he thoroughly covered the subject.

Following Dr. Whinnery's talk, Dr. Alexander Campbell gave a very interesting talk on "Birth Control and Clinics."

An open discussion followed, after which routine business matters of the district were covered.

It is the consensus of opinion in my district that these group county meetings create more harmony and are of more interest than other gatherings. This is well proven by the large attendance at each one, and I find that the men make a decided effort to be on hand.

It is my purpose, as in the past, to hold four such meetings each year, holding one in each county.

T. F. Heavenrich, M.D.

WAYNE COUNTY

Detroit Medical News is the new name adopted by the bulletin of the Wayne County Medical Society with the September 5 issue, the first of Volume XXV. The bulletin also has a new cover of modernistic design. Any member of the Michigan State Medical Society who desires to be on the mailing list of the *Detroit Medical News* should send his name to Wm. J. Burns, Managing Editor, 4421 Woodward Ave., Detroit.

The weekly meetings of the Wayne County Medical Society are being held every Monday night in the Detroit Institute of Arts, Woodward Ave., between Putnum and Kirby, Detroit. All State Society members are invited to attend these interesting presentations. Meetings are called to order promptly at 8:45 P. M.

An innovation this year is the social hour in the Society's club rooms after the first meeting of the

month. These are arranged to honor the past presidents of the society. Dr. Alexander W. Blain was the honored host, October 2. Three hundred and fifty members attended the meeting and the "afterglow."

The Entertainment Committee is planning a most ambitious year for 1933-34. The tentative program is as follows:

1. October 28—Dramatic Night.
2. November 27—Feather Party.
3. December 16—Children's Christmas Party, arranged in coöperation with the Woman's Auxiliary.
4. January 29—Bridge-Dance.
5. February 12—Vaudeville Show.
6. March 17—Irish Day Dramatics.
7. April 30—Hobby Night.

When in Detroit, drop in for luncheon in the Wayne County Medical Society club rooms. If you feel in the mood for a game of bridge, drop down to the Rathskeller at 4421 Woodward Ave., Detroit. You will find a hearty welcome, some of your old friends, and many new and splendid acquaintances. Incidentally, the food is excellent and reasonably priced.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

WAYNE COUNTY

The first meeting of the year of the Woman's Auxiliary to the Wayne County Medical Society was held in the Society's club rooms on Tuesday, October 10, 1933, at 2:30 P. M.

Mr. Wm. J. Burns presented a few words of greeting on behalf of the Wayne County Medical Society.

The members and their guests were entertained with a Russian program. Mm. Colleroke Krassovsky from the Occupational Therapy Department of the University Hospital at Ann Arbor was the guest speaker. Her subject was "Special Education for Hospitalized Children."

Mme. Alexander Roudoy, in Russian costume, presided at the tea table during the social hour following. The tea was poured from a Russian samovar. Mrs. J. W. Gordon and Mrs. G. B. Carpenter were hostesses for the occasion.

During October there was a special membership drive. Thirteen hundred letters including application blanks were sent to wives, sisters, mothers, and daughters of doctors. And these were followed by personal calls.

The Society remains under the guidance of the same officers who directed it last year with two exceptions. Mrs. Claire L. Straith, the popular president of the previous year, retains her position, as does Mrs. Frank W. Hartman, the very able vice president and chairman of the Program Committee. Mrs. H. W. Plaggemeyer is the new corresponding secretary, and the office of financial secretary has been added. Mrs. Wm. H. Rieman will fill this post. The complete list is as follows: President, Mrs. Claire Straith; vice president, Mrs. J. H. Dempster; corresponding secretary, Mrs. H. W. Plaggemeyer; recording secretary, Mrs. A. O. Brown; financial secretary, Mrs. Wm. H. Rieman; treasurer, Mrs. S. P. L'Esperance; custodian, Mrs. W. L. Hulse.

The committee chairmen include: Membership, Mrs. Milton A. Darling; Social, Mrs. Roger V. Walker; Program, Mrs. Frank W. Hartman; Courtesy, Mrs. Gerald Wilson; Press, Mrs. Clifford Loranger; Revision, Mrs. Elmer L. Whitney; Public Relations, Mrs. Ed. G. Minor; Hygeia, Mrs. H. J. Hammond; Legislative, Mrs. Robert Beattie; Welfare, Mrs. P. J. Abbott; Ways and Means, Mrs. C. I. Owen; Study Group, Mrs. J. Milton Robb.

MRS. CLIFFORD LORANGER,
Publicity Chairman.

GENERAL NEWS AND ANNOUNCEMENTS

Dr. N. O. La Marche and Mrs. A. B. Truesdell of Detroit were married on August 15, 1933.

The 114th annual meeting of the Michigan State Medical Society will be held in Battle Creek, September, 1934.

Dr. Norman Miller, Professor of Gynecology of the University of Michigan Medical School, addressed the Calhoun County Medical Society, October 3, on the subject "Endocrinology in Gynecology."

The Wayne County Medical Society opened auspiciously on the evening of October 2, for the year 1933-34. The night of meeting has been changed to Monday and the place to the Detroit Institute of Arts. Dr. A. W. Blain, the president, opened the meeting by introducing Mr. Albert Kahn of the Art Institute commission. The program was provided by two laymen, Mr. Malcolm Bingay, on whom honorary membership in the Wayne County Medical Society was conferred, and Dr. A. M. Smith, who read a paper on "Medicine and Philosophy." Both papers were masterpieces and the audience of Wayne County doctors, standing room only, showed a keen appreciation. After the meeting the members of the society were the guests of the president at the Wayne County Medical Club, Canfield and Woodward, where feast and song were the order of the night.

Mr. Bingay is managing editor of the *Detroit Free Press*. His address reviewed the achievements of medicine and was, besides, a splendid tribute to the great as well as the more obscure personalities in medicine.

In an address on "Philosophy and Medicine," A. M. Smith, Ph.D., of the editorial staff of *The Detroit News*, traced the main lines of development of philosophy since 600 B. C., with respect to the contest between the principles of the particular and the universal as applied to the general problems of philosophy, and reflected in science, ethics, politics and religion. Institutionalism *versus* individualism; universalism *versus* particularism are the extremes in thought and practice which it is necessary to reconcile if civilization is to endure. In this task, Dr. Smith said, the members of the medical profession must have a significant part, since the nature of the profession not only makes them teachers and leaders, but the problems of medical science are closely allied to problems of philosophy such as the relation of mind to matter; the laws of mental process; ethical relations; and the attitude of the subject toward all objective reality.

In his closing remarks, Dr. Smith reviewed the inner motive of medicine as revealed in the character and work of noted physicians and medical research workers. He concluded that every great physician has been a philosopher, and that an earnest study of the problems of philosophy would be of inestimable value to those who propose to devote their lives to the Art and Science of Healing.

The Dramatic Section of the Wayne County Medical Society, which was organized about a year ago, and which last year successfully produced two one-act plays, has launched upon its activities for the present season. Under the direction of Mr. Wynn Wright, who is in charge of Dramatics at radio station WWJ, two one-act plays were given on Saturday, October 28. The splendid reception accorded the production has encouraged the dramatic group, who, believing that such entertainment should become a permanent part of the society's activities, are planning another presentation, to be given in the Spring. Splendid music, provided by a group of doctors who display much more than ordinary talent, and a lunch, furnished and served by the Woman's Auxiliary, in no small way add to the enjoyment of the evening.

OF GENERAL MEDICAL AND SURGICAL INTEREST

IMPORTANCE OF CLINICAL-PATHOLOGIC CONFERENCES IN WORK OF PRACTITIONER AS TEACHER

Reginald Fitz, Boston (*Journal A. M. A.*, July 22, 1933), states that since more than 100,000 of the 125,000 practicing physicians in this country are directly associated or affiliated with hospitals, it follows that the vast majority of physicians who attend the annual meeting of the American Medical Association must occupy responsible hospital positions, have working under them varying numbers of interns and residents, and, therefore, are to be considered as actively engaged in the teaching of medicine. He believes that many practitioners are not wholly alive to their responsibilities as teachers and do not carry on such teaching of medicine as they are expected to perform, as enthusiastically and vigorously as is desirable. The importance of clinical-pathologic correlation as a means of teaching medicine has been recognized for many years. Yet in a group of 664 hospitals which the Council investigated in 1931, from this point of view, only 86 of them (13 per cent) performed necropsies in more than one half of their fatal cases. These figures suggest that there still exists a good deal of inertia toward such an important method of instruction on the part of the hospital teaching staff. The author discusses the methods employed at the Cabot Clinic, the Mayo Clinic and the Peter Bent Brigham Hospital for using to the best advantage the pathologic material offered.

FUNDAMENTALS OF ASPHYXIA

According to Yandell Henderson, New Haven, Conn. (*Journal A. M. A.*, July 22, 1933), one of the fundamental conditions of health is the balance maintained by respiration between the pressure of oxygen and the amount of carbon dioxide in the body. Oxygen deficiency is the initial cause and first stage of asphyxia, out of which develops the second stage characterized by carbon dioxide deficiency and a compensatory decrease of the bicarbonates of the blood without considerable loss of alkali from the body. The therapy that nature itself indicates to combat asphyxia and related conditions is therefore not only the restoration of an ample supply of oxygen but also the restoration of the normal amount of carbon dioxide. Carbon dioxide, then, recalls the normal amount of alkali into use and, with the return of the normal relations of oxygen, carbon dioxide, and blood alkali, the chief elements in the living system, the circulation, respiration, muscle tonus and mind, again become normal. The facts that the clinical use of carbon dioxide has established force this alternative: either acidosis is a matter of small importance and intensification of acidosis does a patient no harm whatever, or many of the conditions now called "acidosis" are etiologically not acid poisoning.

CURE OF TYPHOID CARRIERS

During the past few years, George H. Bigelow and Gaylord W. Anderson, Boston (*Journal A. M. A.*, July 29, 1933, followed carefully a series of twelve permanent typhoid carriers who have submitted to removal of the gallbladder. Nine of these were operated on in order to be cured of their carrier condition. The other three came to operation primarily because of the clinical condition of the gallbladder. With a single exception, the dates of infection ranged from four to thirty years prior to operation. Medical measures for the cure of typhoid carriers have not been effective. In these twelve cases, cure of the carrier condition has apparently been effected through removal of the gallbladder. In all of these instances, stones were found and the symptoms associated with the gallbladder were cured. Prior to operation the bile should be shown to contain typhoid bacilli, as it is important to make certain that the infection is located in the biliary tract. All carriers whose gallbladders are so removed should be followed after operation for at least a year by monthly examinations of specimens and not definitely released until a negative bile culture has been obtained. The payment of cost of operation is a justifiable public health expenditure, which is cheaper and more effective than subsidy.

TYPES OF CHRONIC RHEUMATISM

Ralph A. Kinsella, St. Louis (*Journal A. M. A.*, July 29, 1933), points out that there are two main types of chronic rheumatism: the one known as rheumatoid arthritis, of apparently infectious nature, caused by some as yet undiscovered agent and without successful treatment at the present time; the other, known as degenerative arthritis, in which the factors of production are fairly well recognized and in which subsequent injury or superimposed focal infection constitute the reasons for bringing such persons under medical care. In this second disease, recovery is much more likely to occur. The prognosis in degenerative arthritis is generally favorable. The nodes on the fingers are sometimes distressing and unsightly, and the symptoms of pain usually subside without special treatment. Patients who have evidence of acute infection of one or more joints usually suffer the most protracted course, but even in these patients limited improvement is to be expected. Long continued use of orthopedic and physical therapeutic measures may be needed, but here, too, success usually follows diligent effort. When one considers the contrast that exists between the prognosis of degenerative arthritis and rheumatoid arthritis, it is apparent that the success of no treatment may be accurately estimated if this treatment is applied indiscriminately to the two types of disease.

COOK'S VITAMINS

"How is it the biscuits were so hard this morning, Mandy?"

"I'se sorry, ma'am, but Ah ain't feeling right pert this mawnin'. My system's kinda run down, so I eat the only yeast cake there was in the house."—*Boston Transcript.*

THE DOCTORS' LIBRARY

"In books we may ascend and look from pole to pole, from east and west, from the north and from the south. They are masters who instruct us without rod or ferule, without angry words. If you come on them they are not asleep: if you ask and inquire of them they do not withdraw themselves: they do not chide if you make mistakes: they do not laugh at you if you are ignorant. Books to the man who uses his reason are dearer than riches. Their value is unspeakable, and no dearness of price ought to hinder a man from buying them. A library of wisdom is more precious than all wealth, and all things that are desirable cannot be compared with it. Whoever claims to be zealous of truth, or happiness, of wisdom or knowledge, must needs be a lover of books."

The writer was Richard de Bury, author of Philobiblion, written in 1344 and not published until 1473.

A PRACTICAL MEDICAL DICTIONARY. By Thomas Lothrop Stedman, A.M., M.D. Twelfth Revised Edition. Illustrated. Pages 1,256. Price $7.00, Thumb-Indexed $7.50. Baltimore, Md. Williams & Wilkins Company, 1933.

It is only three years since the last revision of this well known work. Yet in this brief space of time for a medical dictionary, the author has added about one thousand new words, or as he says, "the prolific medical jargon has grown by an average of more than one new word a day during the past three years." This has necessitated an increase by thirty-three pages. The word defined is presented in bold face type followed by its phonetic pronunciation and its etymology, then a concise, accurate definition. The definitions are characterized by brevity and simplicity. The work will prove a useful desk companion not only to the doctor but to the dentist, pharmacist, chemist, botanist, in fact all who are concerned with the biological sciences.

A TEXT-BOOK OF MEDICINE: (By 141 American Authors) Edited by Russell L. Cecil, A.B., M.D., Sc.D., Professor of Clinical Medicine, Cornell University, Medical College; Associate Attending Physician, New York Hospital, New York City. And Associate Editor for Diseases of the Nervous System, Foster Kennedy M.D. F.R.S.E., Professor of Neurology, Cornell University, Medical College; Director, Department of Neurology, Bellevue Hospital, New York City. Third Edition, Revised and Entirely Reset. 1,664 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $9.00 net.

It is a somewhat difficult matter to revise a book of composite authorship. However, within the short space of three years we have a third revision of Cecil's well known work on Practice. This revision over two editions, which appeared three years ago, is a complete recasting of chapters by the original authors and the entire book has been reset. The additional matter by new contributors is as follows: Plague, Kala-azar, Psittacosis, Rat-Bite Fever, Pertussis. The Erythemas, Poisoning by Radio-Active Substances, Diseases of the Bronchi, Hypotension, Diabetes Mellitus, Diseases of the Parathyroids, Diseases of the Suprarenal System, Diseases of the Pituitary Body and the Neuroses. There is a decided advantage in the monograph which represents concentrated effort of the author upon a certain subject. Cecil's work on Practice is therefore a collection of monographs. It therefore has an advantage over any other work which deals with such a monumental topic as medicine apart from surgery.

OPERATIVE SURGERY. By Warren Stone Bickham, M.D., and Phar.M. (Tulane), M.D. (Columbia), F.A.C.S., Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York; Former Instructor in Operative Surgery, College of Physicians and Surgeons (Columbia), in the New York Post-graduate Medical School and Hospital and in the New York Polyclinic Medical School and Hospital, Fellow of the New York Academy of Medicine, and Calvin Mason Smyth, Jr., B.S., M.D., F.A.C.S., Assistant Professor of Surgery, Graduate School of Medicine, University of Pennsylvania; Surgeon-in-Chief Methodist Episcopal Hospital; Visiting Surgeon, Abington Memorial Hospital. Volume VII, including General Index to complete work. Volumes I-VII. 849 pages with 765 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $10.00.

Eight years have elapsed since the publication of the first six volumes that constituted this dependable surgical text authority. This supplement brings up-to-date by adding to each section established operative procedures.

The value of the original text is enhanced. It continues to be a reliable operative guide.

THE DISEASES OF INFANTS AND CHILDREN. By J. P. Crozer Griffith, M.D., Ph.D., Emeritus Professor of Pediatrics in the University of Pennsylvania; Consulting Physician to the Children's Hospital, and St. Christopher's Hospital for Children; Consulting Pediatrist to the Woman's, the Jewish and the Misericordia Hospitals, Philadelphia, and A. Graeme Mitchell, M.D., B. K. Rachford, Professor of Pediatrics, College of Medicine, University of Cincinnati; Medical Director and Chief of the Staff of the Children's Hospital Research Foundation; Director of Pediatric and Contagious Services, Cincinnati General Hospital. 1155 pages with 281 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $10.00 net.

This work is well known to the pediatrists to whom little need be said by way of commendation. The third edition is the result of a scarcity demand in as much as the second has been sold out. The authors, however, have met the demand by a very thorough revision of the work. It is not only a book for the specialist but for the general practitioner as well, to whom perhaps the majority of children are taken when medical services may be required. The work represents the experience of two nationally known pediatrists. The various subjects are clearly and consisely presented. A feature that is deserving of special mention is the colored plates which reproduce as faithfully as possible the pathology described. This will be found a very satisfactory work on the practice of medicine as limited to disease of infants and children.

DISEASES OF THE CHEST AND THE PRINCIPLES OF PHYSICAL DIAGNOSIS: By George William Norris, A.B., M.D., Formerly Professor of Clinical Medicine in the University of Pennsylvania; Chief of Medical Service "A," Pennsylvania Hospital; and Henry R. M. Landis, A.B., M.D., Sc.D., Professor of Clinical Medicine in the University of Pennsylvania; Director of Clinical and Sociological Departments of the Henry Phipps Institute of the University of Pennsylvania. With a Chapter on the Transmission of Sounds Through the Chest by Charles M. Montgomery, M.D., Formerly Physician to the Phipps Institute, Philadelphia; and a Chapter on the Electrocardiograph in Heart Disease by Edward B. Krumbhaar, Ph.D., M.D., Professor of Pathology, University of Pennsylvania, School of Medicine. Fifth Edition, Revised. 997 pages with 478 illustrations. Philadelphia and London: W. B. Saunders Company, 1933. Cloth, $10.00 net.

This work has long ago found its place as a standard textbook on Diseases of the Chest and the Principles of Physical Diagnosis. The fifth edition emphasizes the importance of clinical methods. The authors maintain that the laboratory should be the clinician's partner and not his master. The work is well illustrated by photographs and drawings frequently of the gross pathological specimens above the diaphragm. We know of no other work of its size that treats of disease of the thoracic cavity more fully or authoritatively than this.

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXXII DECEMBER, 1933 No. 12

CONTENTS

Abscess of the Lung. John Alexander, M.D., and Cameron Haight, M.D. ... 637
Varicose Veins. Eugene A. Osius, M.D., F.A.C.S. ... 641
Incidence and Prophylaxis of Epidermophytosis in School Children. Loren W. Shaffer, M.D., and William R. Cary, Jr., B.S. ... 648
Acute Cerebral Injuries. H. E. Randall, M.D. ... 652
A Preface to Endocrine-Therapy. Norman F. Miller, M.D. ... 655
Ovarian Disease, Especially in Relation to the Painful Breast. Joseph E. Rosenfeld, M.D.C.M. ... 656
The Commercial Exploitation of Vitamin D. Harold R. Roehm, M.D. ... 659
Green Pastures Nearer Home. W. J. Stapleton, Jr., M.D. ... 661
A Case of Banti's Disease in a Fifteen-Year-Old Girl. Osborne Allen Brines, M.D. ... 665
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H. ... 666
Editorial:
The Afflicted Child Law ... 668
1933 Reflections ... 669
Prevention of Tuberculosis in Adults ... 669
The Doctor's Automobile ... 670
Technocracy ... 670
Gynecology Information ... 671
Medicine. How is it pronounced? ... 671
Historical: The Microscope ... 672
Correspondence ... 673
Society Activity ... 674
County Societies ... 679
Woman's Auxiliary ... 682
General News and Announcements ... 683
Index to Volume XXXII ... 685

ABSCESS OF THE LUNG*

JOHN ALEXANDER, M.D.,† AND CAMERON HAIGHT, M.D.‡

ANN ARBOR, MICHIGAN

Abscess of the lung, one of the most severe of the pulmonary infections, is not entirely an unpreventable disease. Its development shortly after pneumonia can scarcely be avoided. Its occurrence, however, as a postoperative complication, especially following operations about the upper respiratory passages, can be frequently prevented by the preoperative correction of poor oral hygiene, by the use of a light anesthesia and a fifteen degree Trendelenburg position to prevent aspiration of mouth secretions during operation, and finally by the postoperative use of carbon dioxide inhalations and the encouragement of expectoration of any secretions that may have gained entrance to the lower respiratory tract.

The frequency with which pulmonary abscess develops after the aspiration of foreign bodies demands that any case of foreign body or of a suspected foreign body that is non-opaque to the roentgen rays, should be immediately treated by bronchoscopy in order to prevent the sequelæ that almost invariably follow delayed removal. In elderly persons with an impaired cough mechanism, pulmonary abscess may result from the retention of infected secretions that have been aspirated during sleep. For

*From the Department of Surgery, University of Michigan. Read before the Section on Surgery, Michigan State Medical Society, Grand Rapids, Sept. 13, 1933.

†Dr. John Alexander is Professor of Surgery at the University of Michigan and Chief Surgeon of the Michigan State Sanatorium; he is a graduate of the University of Pennsylvania, 1916.

‡Dr. Cameron Haight is instructor in the Department of Surgery at the University of Michigan; he is a graduate of Harvard Medical School, 1926.

this reason, it is important that faulty oral hygiene should be promptly corrected.

Pulmonary abscess may be caused by a variety of organisms, most important of which are the spirochetes and fusiform bacilli of the mouth. The pulmonary lesion begins as an area of suppurative pneumonitis which may resolve or which may undergo necrosis, liquefaction and cavity formation. Surrounding the cavity is an area of infiltration which contains the infecting organisms and which may continue to excavate, thus resulting in the formation of an enlarging abscess or of multiple abscesses.

DIAGNOSIS

The diagnosis of abscess of the lung can frequently be made by either the history of a recent operative procedure or the possible aspiration of a foreign body followed by expectoration of varying amounts of foul and discolored sputum. The symptoms of toxicity may be mild or severe. Hemoptysis is common in abscess, but as it may be caused by other pulmonary lesions it is of little differential value. Clubbing of the fingers and toes when the history is of short duration, is suggestive of abscess. Physical examination of the chest may reveal few or no abnormal changes, or the signs may be those of atelectasis, pneumonitis, consolidation or cavity. Oral sepsis is usually present.

In the earlier stages of the disease, failure to see a pulmonary cavity on roentgen examination is frequent, as the area of suppuration in the lung may not as yet have undergone excavation. Even if excavation has occurred, the cavity may be choked with thick pus due to deficient intrabronchial drainage and the cavity may therefore be invisible. Lipiodol will, of course, fail to enter a cavity that is already filled with debris or whose bronchial communication is small.

Laboratory examination may be of great aid in the cases of doubtful etiology which are usually those with an insidious onset. The sputum should be examined routinely for tubercle bacilli, as it is not uncommon in cases suspected of abscess of the lung to find that in reality one is dealing with pulmonary tuberculosis. In the absence of tubercle bacilli, the finding of spirochetes and fusiform bacilli in the sputum is confirmatory evidence in favor of abscess.

Other differential diagnostic conditions include pulmonary gangrene, which, although of the same nature as abscess, assumes a more extensive and virulent form. Carcinoma of the bronchus produces analogous symptoms from the suppuration that almost invariably occurs distal to the obstruction. The diagnosis of the malignancy can be arrived at with certainty by bronchoscopy with biopsy of the tumor or occasionally by the finding of tumor cells on histological examination of the sputum or pleural fluid, if present. Pulmonary abscess at times occurs as a result of a preceding bronchiectasis, in which instance the bronchiectasis may be overlooked if lipiodol roentgenograms are not made. The rupture of an empyema into a bronchus, producing a bronchopleural fistula is usually accompanied by large amounts of foul sputum. The diagnosis of this condition can frequently be arrived at by roentgen examination. When a fluid level is present a frontal projection should be made with the patient lying on the unaffected side. The air above the fluid level will usually be visible immediately beneath the parietal pleura, as no pulmonary tissue intervenes between the thoracic wall and the air in the emypema space.

TREATMENT

The treatment of the early stage of pulmonary abscess consists of rest, together with measures to improve the intrabronchial drainage and to develop the patient's resistance. Strict bed rest should be supplemented by a temporary phrenic nerve interruption, obtained by crushing the nerve. The paralysis of the hemidiaphragm that follows this operation will aid in resting and relaxing the affected lung.

If spirochetes and fusiform bacilli are present in the sputum, a course of intravenous injections of neoarsphenamine at five or seven day intervals may be of value, providing it is given in the acute or subacute stages of the disease. For a 150-pound patient, the initial dose is 0.3 gm., the second 0.45 gm. and the remaining four doses are 0.6 gm. each. The secondary anemia that accompanies severe pulmonary infections can be corrected by the use of reduced iron and blood transfusions.

Success in the conservative management of abscess depends upon the maintenance of adequate bronchial drainage. The cases

that recover spontaneously or under conservative therapy alone, are those with free intrabronchial drainage.

Postural drainage is a valuable measure in the conservative management of abscess. Its use is to be governed by its effectiveness in producing evacuation of secretions and by the ability of the patient to tolerate it. Ordinarily it is given by having the patient hang over the side of the bed with his head close to the floor. Several minutes at each drainage will usually be sufficient, but to be most effective it should be repeated not less than every two hours during the day and every four hours at night. For basal lesions, continuous postural drainage may be employed by elevating the foot of the bed on the arms of a chair. Hyperventilation of the lungs by the use of carbon dioxide inhalations will also aid in promoting drainage. In the absence of a special tank of the gas, its effect can be obtained by having the patient rebreathe into a paper bag or by voluntary deep breathing.

Bronchoscopy is also of advantage in improving the intrabronchial drainage. Although the abscess cavity, especially if it is peripheral or in the upper lobe, can rarely be entered with the aspirator, the secretions in the larger bronchi are easily aspirated. The procedure is followed by rather severe coughing that tends to empty the cavity of its secretions and to dislodge purulent plugs in adjacent small bronchi. Furthermore, the edematous and constricted bronchi draining the abscess can be enlarged by the bronchoscopic application of a solution of equal parts of 10 per cent cocaine and 1:1000 adrenalin.

Induced pneumothorax is a dangerous therapeutic procedure that should be avoided in all but unusual cases. In the majority of cases the pulmonary infection extends to the periphery of the lung, in which instance adhesions between the visceral and parietal pleuræ occur early. These adhesions not only interfere with an optimum collapse of the lung, but any tension on them is likely to tear the underlying necrotic lung, resulting in the production of a severe empyema. A possible indication for the use of pneumothorax occurs in those cases of abscess that lie in the central portion of the lung. When in this location, the danger of empyema is less and the probability of communication with a large bronchus suggests that the intrabronchial drainage may be adequate and that pneumothorax may be effective.

The surgical treatment of pulmonary abscess, except with regard to rest, is in direct contrast to that of pulmonary tuberculosis. In tuberculosis one aims to collapse the affected portion of the lung. In abscess, although the principle of collapse is occasionally utilized, the main object is to provide adequate drainage of the lesion. There is an essential difference in the effectiveness of the bronchial drainage in the two conditions. In tuberculosis, drainage is usually adequate, and therefore collapse is effective. In abscess, drainage is usually inadequate and, if so, collapse will be ineffective.

If such treatment as we have already considered should fail to bring about a cure within six, eight or ten weeks after the onset of the pulmonary infection, external or transthoracic wall drainage usually becomes necessary and frequently is curative. Accurate roentgenologic localization of the cavity, if visible, is important before undertaking external drainage. Upper lobe lesions are best drained by an anterior axillary or frontal approach, lower lobe lesions by an infracapsular incision and middle lobe lesions by incision anteriorly over the cavity. In the absence of complete pleural adhesions at the site of drainage, a two stage procedure is required in order to seal off the pleuræ and prevent spillage of the infective abscess contents into the pleural cavity. At the first stage several ribs are resected over the cavity and the intervening intercostal bundles are excised. If the visceral pleura is seen to be moving freely beneath the parietal pleura, gauze is packed directly against the parietal pleura in order to induce the formation of adhesions. After an interval of from one to three weeks, depending on the urgency of drainage, the gauze is removed and the second stage of the operation is performed.

Before the abscess is exactly localized by needle aspiration, the parietal pleura that was exposed at the first operation is removed by a circular incision and separation of the adhesions to the visceral pleura. This is done to make certain that the pleural adhesions at the periphery of the operative field are complete, thereby preventing infection of the pleural cavity by material from the abscess. If the adhesions are found to be incomplete, the abscess must not then be drained, but the wound must be repacked for several days. It follows from the pre-

ceding remarks that it would be highly dangerous to undertake a diagnostic aspiration of a pulmonary abscess through the intact skin.

After exact localization of the abscess by needle aspiration, the abscess cavity is entered with the actual cautery. The cavity will frequenlty be found to be filled with inspissated pus and necrotic debris that could not be evacuated through the small draining bronchi. The outer wall of the cavity is burned away with the cautery so that the cavity is saucerized. The cavity and the wound through the thoracic wall are snugly packed with gauze. Tube drainage is not advisable as erosion of the lung by the tube may result in a secondary hemorrhage. Also, a tube offers no resistance to the exit of air on coughing and therefore coughing does not effectively drive the infected pulmonary secretions out of the tube or out of the mouth and many of them remain in the lung, causing extension of the infection and interference with respiration.

The gauze packing is changed daily until closure of the abscess defect and the accompanying bronchial fistula have occurred. If the bronchial fistula is reluctant to close, cicatrization of the fistula can be aided by cauterization with a 40 per cent silver nitrate solution or by the use of the endothermic cautery. If these measures fail, a pedicled flap of muscle may be mobilized and sutured into the abscess defect. The muscleplasty method is usually effective in closing persistent bronchial fistulæ.

Extrapleural compression in the form of extrapleural thoracoplasty or extrapleural pneumonolysis, is at times used as a means of collapsing chronic afebrile cavities that possess adequate internal or bronchial drainage. Thoracoplasty is occasionally used in an attempt to close widespread multiple cavities, the external drainage of which would involve too extensive cauterization. Certain single cavities with good bronchial drainage and that are in the subacute rather than the acute or chronic stage of the disease, may become closed by extrapleural pneumonolysis with gauze or paraffin packing; if the cavity does not become closed, the operation will probably have reduced the severity of the pneumonitis in the lung surrounding the cavity, thereby making subsequent open drainage safer.

Extrapleural pneumonolysis consists of an extrapleural or extraperiosteal separation of the lung from the ribs. Various technics and types of filling have been employed. Gauze packing is the filling customarily used. Several ribs overlying the cavity are resected subperiosteally and compression of the lung is obtained by firm packing of the wound. If it is hoped that the pneumonolysis in itself will be sufficient to effect a cure, the periosteum is not excised but is allowed to remain so that newly formed ribs will regenerate in the collapsed position. In patients with a large amount of sputum and difficulty of expectoration, the ribs may be temporarily left in place, so that the stability of the thoracic cage is undisturbed. Gauze is then insinuated between the bared ribs and the periosteum that has been displaced mesially. The bared ribs are removed at a second operation performed after bone regeneration by the periosteum has resulted in rigidity of the mesially displaced tissues. If a subsequent external drainage is believed necessary, the periosteum and intercostal bundles are excised, so that the packing is applied against the exposed parietal pleura.

Solid paraffin that has been warmed to a plastic consistency can also be used as a filling. It is introduced after resecting a short length of one rib to allow exposure for separating the parietal pleura from the internal intercostal muscles and costal periosteum. The paraffin is molded into the artificially created extrapleural space and the wound is carefully closed. The advantages of the various methods of pneumonolysis are that the lung is not opened to the exterior and that external drainage can be carried out later if the pneumonolysis should fail.

Lobectomy is sometimes employed in cases of multiple abscesses that are confined to a single lobe. The mortality is considerably higher than that of lobectomy for bronchiectasis. If any of the abscesses have been drained, the advantages of lobectomy are that the diseased portion of the lung is completely eradicated and that the risk of secondary hemorrhage from the lung is encountered only after one stage of the operation, whereas with the repeated cauterizations that are usually necessary for multiple abscesses, there is a danger of hemorrhage after each cauterization.

The prognosis of abscess of the lung is chiefly dependent upon the virulence of the infecting organisms and upon the timely in-

stitution of the various therapeutic measures that are indicated for the different phases of the disease. As the chronic stage of abscess, particularly multiple abscess, has a grave prognosis, a vigorous effort should be made to bring about healing at a time when conservative measures are likely to be effective.

VARICOSE VEINS*

EUGENE A. OSIUS, M.D., F.A.C.S.†
DETROIT, MICHIGAN

Contrary to general opinion the obliteration of varicose veins by the injection of sclerosing substances is not a particularly new subject. One of the first references of any importance is that by a young Swiss, Tavel, who, in 1900, began the injection of varicose veins with phenol solution after he had carried out a ligation of the internal saphenous vein. Good results ensued as regards the sclerosing of the varicosities by this worker but a great many patients developed phenol poisoning and the work fell into some disrepute, probably because of this fact. Linser in 1911, while treating syphilitic patients with intravenous mercury, noted that the veins became markedly sclerosed. He seized upon this as a probable means of sclerosing varicose veins of the lower extremity and accordingly treated a large series of cases by means of the injection of bichlorid of mercury solution, but upon noting that these patients developed mercurialism he changed to strong solutions of sodium chloride and at the present writing has done upwards of six thousand cases with excellent results and no untoward consequences. About the same time Sicard and Forestier applied the same method of treatment to varicose veins, using, however, a combined solution of sodium salicylate and sodium chloride. They have done a large number of cases attended by excellent results and no untoward consequences.

There are three important reasons why we should direct our attention to the treatment of varicose veins. These may roughly be classed under the following heads:

1. Symptomatic
2. Cosmetic
3. Prophylactic

In taking up the first, we note that in patients with varicose veins there is a marked tiredness, aching, burning and easy fatigue of the legs which rapidly goes on to the point of rather severe pain and marked painful claudication at night after going to bed. This is incidentally a good point of distinction between them and the claudication caused by arteriosclerosis, Raynaud's and Buerger's Disease in that these usually occur while the patient is exercising and active, whereas the varicose vein claudication comes on at night when the patient is relatively inactive. These symptoms sound in listing them somewhat innocuous but in talking with patients who have varicosities one is immediately struck by the relative severity of their symptoms as well as by their marked sufferings due to their affliction. It has also been noted that these patients suffer from more or less general malaise. There is a feeling of lassitude, easy generalized fatigue, inability to do concentrated hard work for any length of time, headaches, vague gastrointestinal discomfort, weakness and general lack of "pep." A large percentage present themselves with definitely sallow complexions and washed-out appearance. After the varicosities have been treated the color improves, the general state of mind and the various malaise and generalized symptoms disappear rapidly. DeTakats has done some very interesting and excellent work in the matter of physiological research as regards varicose veins, showing that the carbon dioxide content of the varicose vein is definitely higher than the carbon dioxide content of the antecubital vein taken in a given individual at the same time and it is easy to understand why the foregoing clinical facts should be true. The processes of me-

*From the Varicose Vein Clinic, Harper Hospital, Detroit, Michigan.

†Dr. Eugene A. Osius is a graduate of the University of Michigan in 1921. He did post-graduate work in Massachusetts General Hospital, Harper Hospital, Herman Kiefer Hospital, Berlin, Budapest and Vienna. He is Assistant Surgeon at Harper Hospital (in staff) and is also on the staffs of Receiving Hospital and Children's Hospital, Detroit. His practice is devoted to general surgery.

tabolism in this area are probably definitely slowed and impaired due to the chronic stasis which exists and the subsequent chain of symptoms is thereby easily understood and explained.

2. The cosmetic. The modern styles of bathing suits and general wearing apparel of women, particularly the sheer silk stockings, necessitates that we pay some attention to these large, bulging varices which disfigure and distress patients considerably from the standpoint of self-consciousness and disfiguration.

3. Prophylactic. We know that the varicose vein is a definite forerunner of the following:

(a) Varicose ulcer with its marked disabling effect, not to mention the severe pain and discomfort.

(b) Eczema. Varicose vein eczema is a common affliction and it is remarkable how rapidly the eczema disappears as soon as the veins supplying this area are injected.

(c) Brawny edema over a long period of time has also been noted due definitely to varicosities.

(d) This leads in time to marked incapacity for work.

(e) Phlebitis. This occurs very frequently in varicose veins, much more frequently than in veins with a normal wall and normal circulation and this would be reason enough to treat varicose veins in itself.

(f) Flat feet are very common probably due to the poor nutrition of the tissues of the lower extremities in individuals with varicose veins.

Now as to the cause of varicose veins. We must admit that there are probably several factors entering into the etiology of varicose veins. It is our experience that the greater percentage of these occurring in women come on during pregnancy and are as a rule aggravated during pregnancy. This can probably be explained upon the basis: First, of pressure on the recurrent iliac vessels by the gravid uterus, and also to a definite change of endocrine function which we know exists during gestation. The endocrine factor alone often enters from the standpoint that a great many of these individuals with varicose veins belong to the heavy, obese type who fall into the anterior pituitary dystrophy classification.

There seems to be some occupational tendency, varicose veins occurring much more frequently in individuals who are working in standing positions, namely, operators of punch presses, laundresses, bakers and men and women who do relatively little walking. We seldom see men following athletic pursuits, mail carriers and individuals in whom exercise is a common and everyday factor develop varicose veins. Practically 50 per cent of our cases will give a definite history of varicose veins occurring either in the father or mother or close branches of the antecedent family. Eighty per cent of our cases have occurred in women, 20 per cent in men, and it is quite striking that relatively few negroes develop varicose veins. Other than this we have noticed no effect of race upon the incidence of varicosities.

It is only fitting that we compare at this time operative treatment of varicose veins as against the injection method for the treatment of varicose veins. It has been shown by statistics that the incidence of emboli in the operative treatment of varicose veins occurs about one in two hundred and fifty cases with frequently fatal and serious results. Of fifty-three thousand collected cases of varicose veins treated by injection as reported by McPheeters there were seven accidents resulting in a lethal outcome, making then a mortality of .0013 per cent, probably a lower accident rate than exists in any procedure being carried out in medicine at the present date. These cases were done by various operators under various conditions, and upon analyzing the seven accidents we find that errors were chiefly due to mistakes in accepting cases which should have been rejected; namely one with coronary sclerosis, etc. The operative treatment of varicose veins necessitates hospitalization, considerably more skill, and utilizes hospital beds which might well be used in non-depression times for more serious diseases. The injection method can be carried out with the patient ambulant, requires ordinary skill but demands attention to details with which each operator should acquaint himself thoroughly. Cost of medication is relatively low and no hospital beds are utilized for this individual. The operative treatment entails definite economic loss on the part of the patient in that he cannot work during treatment and is hence a non-producer for his community. The injection method results in

no loss of work; in fact we advocate these individuals carry on their usual activities. They are able to make their living and are a help to their community. From the standpoint of age the injection treatment has a definite advantage in that the age limit can be definitely raised as compared with the operative procedure.

In spite of all these very favorable arguments for the injection treatment of varicose veins, there are very definite, sharp contra-indications to the use of this treatment:

(1) Acute phlebitis. Under no consideration should any case with acute phlebitis be treated by means of the injection method and our treatment of acute phlebitis follows the time honored course of rest with the application of cold or heat (depending upon the circumstances) and immobilization of the part. Cases who have had acute phlebitis in the past one or two years should not be accepted for the injection treatment for the reason that it very frequently reactivates a phlebitis with serious results. It has been our policy to accept these cases only after a long period of time, namely, two to three years, has elapsed from the time of the onset of the acute condition.

(2) Cardiac or circulatory disease. It is not wise to accept cases that are suffering from cardiac decompensation in any of its degrees or forms and particularly so cases in whom a definite history of angina or anginoid symptoms can be elicited. Decompensated cardiacs very often have varicosities of various degrees and severity and these we feel should be carefully put to one side until the cardiac condition is such as to render them fit for their usual activities and then the injection treatment may be carried out *with care.*

(3) Any patients who present themselves with a history of a deep thrombo-phlebitis or as it is commonly called "milk leg" or phlegmasia alba dolens should be carefully studied before even any injections are considered. If it can be proven that the deep vessels have become patent and have recanalized and a long period of time, namely, years, has elapsed since the phlebitis then some of these cases may be accepted with reservation and with care. This fitness may be determined in the following way: (a) Any patient with a brawny edema which does not go down over night after resting in bed, should be excluded without further consideration for the injection treatment of varicose veins. If, on the other hand, there is no brawny edema even with a positive history of a deep seated thrombo-phlebitis, and if this patient after the application of an Unna dressing which encases both the foot and the leg as far as the knee reports no discomfort upon walking about and leaving this dressing applied for a period of two to three hours or even several days, then we have good evidence that the deep vessels are patent and this patient may be accepted for treatment with care. If in doubt reject the individual.

(4) Hyperthyroidism is a definite contra-indication for the injection treatment of varicose veins as there is one case reported in the literature where a thyroid storm occurred and death ensued. It is a good general maxim that patients suffering with hyperthyroidism should not be subjected to any procedure until after thyroidectomy has been performed. These patients stand any interference very poorly.

(5) In our opinion it is wiser to defer the treatment of varicose veins in a pregnant woman until after delivery has taken place. First, for the reason that a great many varicose veins will disappear after delivery and, second, we feel that the pregnant woman is carrying as much of a burden as should be asked of her.

(6) Syphilis is a contra-indication to the treatment of varicose veins until *it* has been thoroughly treated. There have been several cases reported where varicosities have disappeared entirely upon the treatment of the syphilis.

(7) Abdominal tumors such as fibroids, ovarian cysts, etc., should first be operated upon and removed inasmuch as their pressure may be causing a certain degree of varicose veins to exist.

(8) Raynaud's, Buerger's disease, arteriosclerotic gangrene, or like conditions in which at times there is a definite dilatation of the vein should carefully be rejected and turned aside. These should under no circumstances be injected or treated and these conditions should be carefully looked for before accepting an individual for treatment.

TECHNIC OF TREATMENT

Every case presenting him or herself for

the treatment of varicose veins should be given a thorough and complete physical examination including urinalysis, Wassermann and pelvic examination. It is sometimes difficult to make a patient understand why this is necessary but we feel that it is a most important step in the procedure. It enables us to immediately classify and to reject any patients presenting themselves with one of the contra-indications. The following form or table has been used in our clinic quite successfully and covers most of the important features as regards the actual examination for the local condition. (Our patients have previously had a thorough and complete physical examination and history carried out in another department.)

I. CASE NUMBER NAME OF PATIENT AGE OCCUPATION RACE
Para I—II, etc.
Age of children
Abortions
II. Onset of Varicose Veins—Duration
Symptoms—Tiredness—aching—burning—pain
Time of day—swelling and edema—hemorrhage
Eczema—ulcer—skin changes
Claudication—relieved in A. M.
III. *Past History*—Ulcers—inflammatory diseases—accidents
Puerperal sepsis—phlebitis—phlegmasia alba dolens
Mastitis—pelvic inflammatory disease—hemorrhoids
Family History—Heredity
Personal History—Catamenia—present
IV. *Examination*—obese, moderate—slender—endocrine
V. *Legs*—General—Difference in size
Arthritis—hallux valgus—flat foot—edema—color—Raynaud's or Buerger's—diabetic—arterio sclerosis—gangrene—prestages
VI. *Local Examination:* Veins—Virchow I—II—III—IV
Extremity—*right: Thigh* {anterior / posterior} *Leg* {anterior / posterior}
Extremity—*left: Thigh* {anterior / posterior} *Leg* {anterior / posterior}
Trendelenburg—right—left
Dorsalis pedis—Posterior tibial—pulsatile
Anomalies
Varicose habitus
Previous treatment or operation
VII. *Ulcer:*
Location—size—shape—drainage—crust—inflammatory zone—pigmented zone and size—depth—duration—cause—old ulcer sites
VIII. *Eczema*—duration and extent
IX. Other skin changes—"rash"—etc.
X. Histamine test
XI. Recommendations

It has been our custom to do what is known as a histamine test on all patients over the age of fifty. This is carried out according to the method first devised by Starr and has been quite helpful in our hands. Patient is placed upon the table, superficial fat and oil of the skin is removed by going lightly over both legs and lower thighs anteriorly with gauze upon which a little alcohol has been applied; this is then dried with dry gauze and a drop of 1 to 1,000 histamine solution is placed just above the knee, just below the knee, just above the ankle and on the dorsum of the foot of both lower extremities. This is allowed to remain on the surface, then a small hypodermic needle is taken and the skin underlying the drop is gently pricked very similar to the method of doing a pin-prick vaccination for smallpox, and then these areas are watched over a period of fifteen minutes. The normal reaction should be the formation of a wheal as well as a reddened areola around this area within five to fifteen minutes. Should this occur we have good evidence that the arteriolar response is good and to all intent and purpose this individual has a good circulation in his lower extremities.

In reviewing various authors' works as well as our own experience we have come to the conclusion that it is advisable as well as necessary to carry out an ambulatory ligation on most cases before the injection method is carried on. By this we mean a surgical ligation of the internal saphenous or any one of its branches which has been

selected for treatment. This can be carried out quickly and easily with relatively few instruments, can be done in any office or clinic, by the individual with average skill. The instruments needed are two curved hemostats, scissors, several pair of surgical and anatomical forceps, a knife, a syringe for local anesthesia, occasionally one or two Allis forceps (especially for retraction) and one or two fine point forceps for grasping small vessels that bleed after cutting through the skin, suture material either linen or dermal for the skin, and chromic catgut. It is our firm opinion that the recurrences are definitely less if ambulatory ligation is first carried out and further it has been our experience that the number of injections necessary to complete a case has been decreased by practically one-third following ligation as compared to cases treated without ligation. It is indicated on all patients with a positive Trendelenburg test, and on all individuals who have veins with large ampullæ in which the venous pressure is high and in all varicosities which extend above the knee as well as in varicosities which one has been unable to thrombose by the usual method. A word may be here inserted as regards the Trendelenburg test. This was a test devised by Trendelenburg and demonstrates the efficiency of the valves in the communicating veins which run between the superficial and the deep venous system of the lower extremities. It is referred to as positive, doubly positive and negative. The patient is placed in the recumbent position, the leg is elevated and the vein emptied. Then the thumb of one hand is placed over the highest visible or palpable point of the internal saphenous vein, usually in the middle or upper third of the thigh, medial surface, and with thumb in place the patient is asked to stand. Upon standing it will be noted that in most cases there is no filling of the vein over a period of thirty seconds to one minute. If, however, the thumb is released a wave of blood will be seen to force its way into the vein from above, dilating the varicosity and all its branches, indicating thereby that there is a definite reflux of blood, when the patient is in the standing position, from the femoral vein into the internal saphenous. This indicates a positive Trendelenburg and also indicates that the valves in the communicating branches between the deep and superficial systems are intact by the vein remaining empty until release of thumb. This case should be ligated and is suitable for the injection of varicose veins. If, however, upon standing the patient in the upright position the vein begins to fill before the thumb is removed, and then further fills upon removal of the thumb, we say a Trendelenburg is doubly positive and this case also should be ligated before the injection method can be carried out. This indicates that some of the communicating veins between the deep and superficial system have incompetent valves and the tendency to recurrence following the injection method will be greater than in the first type. If, for example, the test is again carried out and the veins fill immediately even with the finger in place and the veins fill seemingly from below or from various points in the course of the internal saphenous and there is no increased filling upon removal of the thumb, then we have definite proof that the valves connecting the deep and superficial system are definitely incompetent and these cases should be rejected for treatment by means of injection. It is our opinion that surgery is indicated in this type of case; and surgery which is extensive should be carried out, namely, the vein carefully dissected and all the communicating branches tied. The normal vein will of course not demonstrate a Trendelenburg.

The procedure next is as follows: Patient is placed in the upright position, the highest palpable and visible portion of the vein is marked with a gentian violet cross (marker), this is fixed with painting by iodine,* after which the skin is thoroughly cleansed and scrubbed and the patient placed in the horizontal position. The line of gentian violet at right angles to the vein is now injected subcutaneously with 1 to 2 per cent novocaine, using 10 to 15 c.c. depending upon the size of the vein, care being taken of course not to inject the vein with novocaine. An incision is made, the vein is separated by means of a curved hemostat from the underlying tissue, it is doubly ligated above and below and the intervening section (½ inch) excised. The skin is closed with dermal or linen and a gum mastic dressing is applied in order to hold the dressing in place and to prevent

*See diagram in Jour. M. S. M. S., p. 547, October, 1933, "The Treatment of Varicose Ulcer," M. C. Harvey.

the gauze becoming saturated with perspiration. The patient is then instructed to carry on his usual activity and is urged emphatically not to rest and not to "lie up" with this condition. We feel that the objections to ligation which have been raised have been based upon cases that were hospitalized and that have not been urged to be ambulant. If these cases are ambulant and continue to carry on their usual activities, no accidents will happen in the nature of emboli, etc., unless some detail in asepsis has been broken. Patients are then asked to return in one week for a dressing and removal of sutures and at that time the injections of the veins can be started. It will be frequently noted that there is some thrombosis distally from the point of ligation during the week following the operative procedure. This occasionally causes some distress and discomfort but this should not deter the patient in any way from carrying on his usual activities and should not alarm the operator.

TECHNIC FOR INJECTION

Technic for injection is as follows: We stand the patient up on the table, survey the vein, select the vein which is to be injected and then ask the patient to lie down on the table, marking the vein mentally, and upon lying down the veins will collapse.

This, however, should make little difference in the ease with which these veins are injected. Now a 5 or 10 c.c. syringe with a No. 25 needle is taken and inserted into the vein, the syringe containing the sclerosing solution. The plunger is drawn back slightly to make certain that the vein has been entered and that blood returns into the syringe. Upon the appearance of a good flow of blood, the vein is slowly injected, being careful to check frequently that the needle is still in place and that the sclerosing substance is not going into the subcutaneous tissue. We have used no occluders nor tourniquets for a matter of two years and have felt that our results are just as good as if these were used. One must think of the venous system, not as a long tube with two ends, but as a long tube with two ends and various small openings coming from the sides of the tube, making a somewhat sieve-like arrangement. It can thus be seen that the tourniquet would only be of benefit if it should by chance isolate a small section of the vein which has no communicating branches with the deeper system. The vein is emptied of blood by the patient being in a horizontal position and good sclerosis has resulted in our hands. Immediately upon withdrawal of the needle a small gauze pressure dressing is applied and the patient is allowed to remain quiet on the table two to three minutes. At this time one can often note a definite contraction and thickening of the vein occurring under one's eyes and is good evidence that the sclerosing solution is doing its work. Following this the patient is allowed to get up and to continue about her usual activities. Two to three areas, even four or more, may be injected at one sitting, depending upon the general resistance and stamina of the patient and depending also on the size of the varicosity to be treated. Very frequently upper and lower ends of a relatively large segment of varicose vein is injected with the solution being directed in opposite directions, causing the intervening segment of vein to be thus thrombosed and destroyed by the two injections given at one sitting. We have found this very effective in large segments of the internal saphenous and some of its larger branches. It has been our custom to treat from one to two or four areas at a time with the solution that we are now employing, but have treated as many as seven areas on one patient at one sitting and using dextrose and sodium chloride. Patients are seen at weekly intervals.

During the actual injection the following will be noted: At first if the needle is in the vein and everything is progressing nicely, the patient will not complain of anything for a matter of ten to fifteen, to twenty seconds. At this time they will begin to say that there is a slight cramping and drawing sensation of the vein which is being injected. If this occurs everything is well and the injection may continue. If, on the other hand, the patient complains immediately upon the beginning of injection (within five to ten seconds) that there is a burning, stinging, smarting sensation then this is very good presumptive evidence that the sclerosing solution is getting into the surrounding tissues, namely subcutaneously, and the injection should immediately be stopped. Should the injection continue definite necrosis and ulceration will ensue.

Schmier of New York adopted the method of injecting distilled water subcutaneously whenever he felt some of the sclerosing solution had leaked into the surrounding tissue. This was very successful in his hands and we have used the same method with a slight improvement. If at any time we feel there is a leakage of the sclerosing solution into the subcutaneous tissue the injection is immediately stopped and 4 to 5 c.c. of 0.5 per cent novocaine solution is injected subcutaneously at the site of the vein injection. This has the two-fold purpose of diluting (as does the distilled water) the sclerosing solution, protecting thereby the tissues from necrosis, and has the further advantage that it immediately stops all smarting, burning and discomfort for the patient. We have found this very successful and have obviated a large number of sloughs and necroses. As a general rule the following day the patients will complain of soreness, even of marked redness and hardness, at times quite severe, of the injected vein. If necessary cold compresses may be applied for symptomatic relief, but we advocate that these patients in so far as possible continue their usual activities and not immobilize themselves in bed. The patient then returns at weekly intervals and all of the varicose veins which can be seen or felt are injected. At the completion of this the patient is given a month's vacation and is asked to return at that time for further observation. There usually are several smaller veins at this time to inject. This is again carried out to completion and the patient is then allowed to remain away for six months and report at six month intervals. It has been our custom to advise patients to wear an elastic bandage during the course of treatment. This tends to keep the veins empty, produces a firmer thrombosis and gives the patient some symptomatic relief early in the treatment. It has been quite striking that patients have had marked relief after two or three injections, often very early in the beginning of the treatment.

A word or two should be mentioned as regards the various solutions used and their various good and bad points. Since February, 1932, we have been using in our clinic sodium morrhuate in 5 and 10 per cent strengths. The amount of each injection is from 0.5 to 2, at the most 3 c.c. at one site. A patient thus will receive, if given three to four injections, on an average of 4 to 8 c.c. of sodium morrhuate intravenously at various points. We caution in the use of this solution that very small and minute amounts be used in the small superficial varices which often occur inasmuch as the reaction to sodium morrhuate is quite vigorous and quite severe and a slough will ensue even though the solution has not been placed extravenously. We believe this is due to the severity of the reaction and inability of the small, thin walled vein to retain the solution properly. Dextrose sodium chloride is probably the better solution for the *small superficial varices* which occur throughout the extremities. Sodium morrhuate has in its favor: First, the amount of solution necessary to inject is small which obviates failures in technic. Second, it is well tolerated. Third, the thrombosis and sclerosis which is produced is firm and vigorous. Fourth, the end-results merit its use. The 10 per cent has been reserved for large veins which it has been difficult or impossible to sclerose with the lower percentage. As a stock solution 5 per cent sodium morrhuate is usually used. Sodium salicylate and sodium chloride in 25 and 10 per cent strengths, respectively, in a mixed solution, produces excellent results, good thrombosis, firm sclerosis and may be used in amounts varying from 0.5 to 4 c.c. per injection. Two to three areas may be injected at one sitting but it has as its drawback very severe, cramplike pain and very quick and rapid necrosis should some of the solution get into the subcutaneous tissues. All in all it is a good solution from the standpoint of the results obtained. Dextrose 50 per cent and sodium chloride 30 per cent mixed solution is pleasant to use from the standpoint of the patient, produces a fair thrombosis and fair sclerosis, relatively painless and is used in 10 and 20 c.c. amounts, at each injection and anywhere from one to five, to six injections can be given at a sitting. But it is our opinion that the number of recurrences following dextrose and sodium chloride is greater than with other solutions, due to the lack of firmness of the thrombus and lack of vigorous sclerosis of the vein. For that reason we have used it of late in our clinic only for the small superficial varices where sodium morrhuate would be too vigorous. Quinine and urethane is an excellent solution which has in its favor the following features: small amounts give good sclerosis and the thrombus that is formed is very

firm; it is used in 1 to 2 c.c. amounts; as a rule only one or two sites are injected at one sitting and it is painless. It has as its drawback certain definite features: (1) idiosyncrasy or cinchonism; (2) rapid and definite necrosis upon the least amount getting into the subcutaneous tissue; (3), there is greater tendency to leakage due to fluidity of the blood following withdrawal of the needle than with other solutions.

The number of injections will necessarily vary with the severity of the case, but in our experience the average number of injections has been between ten and eleven if combined with ligation of the vein and one-third greater if not combined with ligation of the vein.

It is our opinion that by careful technic and good attention to details, together with careful selection of cases, injection treatment of varicose veins is an efficient weapon in the armamentarium of a physician, giving a great deal of relief and comfort to patients who have in the past been somewhat neglected.

INCIDENCE AND PROPHYLAXIS OF EPIDERMOPHYTOSIS IN SCHOOL CHILDREN*

LOREN W. SHAFFER, M.D.,† and WILLIAM R. CARY, JR., B.S.
DETROIT, MICHIGAN

Epidermophytosis is rapidly becoming recognized as a public health problem. There is a wide-spread belief that public showers, swimming pools, locker rooms, etc., are the most important sources for this infection. We decided to make an investigation of epidermophytosis in the public schools of the City of Detroit and divided our problem into a threefold study: first, the prevalence of epidermophytosis in our school population; secondly, the influence of the above mentioned factors in its spread; and, finally, the development of effective prophylactic measures controlling the infection.

We examined school children of all grades in scattered schools throughout the city of Detroit, so as to obtain a representative cross section for the city as a whole. Neither direct examinations of scrapings or cultures as a proof of infection were practical for the classification of the large number of children that this study represents. The diagnosis was made solely on clinical findings. In the absence of laboratory proof of infection it would be more accurate to classify our cases as examples of "infectious intertrigo," since it is now recognized that the clinical findings, for long accepted as typical of epidermophytosis, may be induced by other causes.

The infected cases were divided according to severity into three groups: Group I consisting of very mild to mild involvement, Group II of moderately severe, and Group III of severe clinical cases. Clinically over 95 per cent were of the intertrigenous or desquamative type. The vesicular found in active acute cases, and the eczematoid involving the dorsum of the toes, were next in frequency. The keratotic type is very rare in children.

GENERAL INCIDENCE

It will be seen from the accompanying table (Table I) that a total of 7,454 children were examined, being divided almost equally between boys and girls. Only sufficient grade children were examined to give us a fair average for determination of incidence. For the lower grades (from one to six), there are very few of either the moderately severe or severe types. Beginning with the seventh grade moderate to severe degrees of involvement are more common. Our observations would seem to indicate that the age of puberty is a dividing line after which both incidence and severity increase. We believe that this rising incidence

*From the Detroit Department of Health, School Health Service, Don W. Gudakunst, M.D., Director.

†Dr. Shaffer is a graduate of the University of Michigan, 1917. Medical Corps, U. S. Navy, 1917-1921. First Assistant, Department of Dermatology and Syphilology, Mayo Clinic, 1921-1924. Assistant Professor of Dermatology and Syphilology, University of Pennsylvania, 1925. Engaged in practice of Dermatology and Syphilology in Detroit since 1925. Staff of Harper and Receiving Hospitals, Instructor Detroit College of Medicine.

TABLE I. INCIDENCE OF EPIDERMOPHYTOSIS IN SCHOOL CHILDREN.

GRADE	SEX	NUMBER EXAMINED	GRADE OF INVOLVEMENT			PER CENT INVOLVED
			I	II	III	
1	Boys	33	5			15
	Girls	32	1			3
2	Boys	102	16			16
	Girls	86	7			8
3	Boys	121	25			21
	Girls	125	16	2		14
4	Boys	116	33	5		33
	Girls	93	22	2		26
5	Boys	91	30	4		37
	Girls	86	27	2		34
6	Boys	79	35	2	2	49
	Girls	98	34	3		38
7	Boys	465	160	52	7	47
	Girls	460	159	23		40
8	Boys	350	142	28	3	49
	Girls	459	161	21	6	41
9	Boys	879	407	160	27	68
	Girls	1,023	461	107	11	57
10	Boys	711	393	123	14	75
	Girls	580	296	57	12	63
11	Boys	473	241	56	7	70
	Girls	479	295	31	7	64
12	Boys	270	149	54	10	79
	Girls	223	127	30	3	72
Totals	BOYS	3,696	1,690	459	70	
		Per cent involved	76	20	4	
	GIRLS	3,758	1,553	303	39	
		Per cent involved	82	16	2	

is due to increasing susceptibility to infection, rather than simply to exposure.

Under the totals in Table I it will be noticed that for the boys 76 per cent of those involved were mild, 20 per cent moderately severe and 4 per cent severe types. Similar totals for the girls show 82 per cent mild, 16 per cent moderately severe and 2 per cent severe. Both the mild and moderately severe cases are usually overlooked in the casual examination, although they are probably as important as carriers as the more severe types. Therefore, although the total incidence of infection evidenced by clinical findings alone is large, severe degrees of involvement are uncommon, being present only in 4 per cent of the boys and 2 per cent of the girls. If this fact is remembered, rather than the total percentage of incidence, our problem is not so alarming.

The major interest would seem to be in the general incidence of infection, rather than the ratio of mild to severe cases. If a graph of incidence is made from the percentages involved as shown in Table I, it plots out as a rather smooth ascending curve, beginning with 3 per cent of the first grade and ending with 72 per cent of the

TABLE II. COMPARISON OF INCIDENCE ACCORDING TO GYMNASIUM FACILITIES.

GRADE	GYMNASIUM FACILITIES	NUMBER EXAMINED	DEGREE OF INVOLVEMENT			PER CENT INVOLVED
			I	II	III	
7	with	741	250	67	7	44
	without	184	69	8		42
	country	41	22	1		56
8	with	622	243	37	9	46
	without	187	60	12		39
	country	34	14	3		50
9	with	1,057	473	154	33	53
	without	462	226	54	2	61
	country	27	16	3		70
10	with	804	417	124	21	70
	without	467	263	54	5	69
	country	28	14	1		54
11	with	796	444	116	14	72
	without	142	85	21		74
	country	30	12	7		63
12	with	440	240	74	12	74
	without	61	36	9	1	75
	country	34	18	4		65

twelfth grade girls. Among the boys, the general incidence of infection averages 8 per cent higher than for the girls, beginning with 12 per cent of the first grade and ending with 79 per cent of the twelfth grade boys.

INCIDENCE ACCORDING TO GYMNASIUM FACILITIES

Our second problem was to check and compare the incidence of infection in schools with and without gymnasium facilities. At the beginning of this study, influenced by the commonly accepted belief that swimming pools, locker rooms, common showers, etc., were the main sources for the spread of the infection, we expected to find a much higher incidence in schools having such facilities.

The results of this study are shown in Table II. It will be noticed that the percentage of involvement is practically the same for each grade regardless of gymnasium facilities, although a higher incidence of severe infections is present in schools having such facilities. Our explanation for this increased severity would rest on greater physical activity, wearing of tennis shoes, etc., in these schools.

To be free from the error of outside exposure we inspected a rural school 40 miles northwest of Detroit which has no communal bathing facilities. Although the number of pupils examined was small, the incidence was even greater than for our city schools in the seventh, eighth and ninth grades, and only slightly less for the tenth, eleventh and twelfth grades. This study would seem to relieve our athletic directors from the main burden of responsibility for the spread of epidermophytosis.

GENERAL OBSERVATIONS

In examining this number of children certain observations in relation to epidermophytosis in general were made. Children having short thick feet with stubby toes more frequently harbor infection than those with long narrow feet and long freely movable toes. Involvement of the hands in association with infection of the feet is uncommon in children. The incidence of infection in negro children is higher grade for grade and the degree of involvement more

severe than in white children. Social status plays little rôle in incidence, there being no definite variation between schools in the poorer and those of the better districts. A study of incidence in family groups shows a familial tendency, namely: one member infected, all infected. While mild hyperidrosis seems to predispose to infection, severe hyperidrosis is accompanied by only mild involvement. The incidence of infection is higher in the spring and fall, and this plus individual variations in degree of involvement must be considered in judging prophylactic and therapeutic results.

PROPHYLAXIS

The weakness in the prophylaxis of epidermophytosis has been to consider only one, or at the most a few sources of probable infection. When one considers the resistance of these fungi to antiseptics and drying, it is probable that every bathroom floor is infected, as well as objects too numerous to mention in contact with either the hands or feet. Exposure, therefore, is almost certain and freedom from the disease depends upon individual immunity, plus the control of certain local factors such as heat, moisture and gross exposure. Such views have been emphasized by Ruggles,[2] who believes that "constant prophylaxis, or rather mild treatment, is the price of freedom for those susceptible to epidermophytosis." We believe that this study proves that the control of exposure in swimming pools, showers, etc., alone will not solve the ringworm problem.

The use of wooden or rubber clogs, paper sandals, etc., while valuable, leaves loopholes for infection. Floors will soon be reinfected after the most drastic fungicidal measures. Although it is our aim to keep active cases out of our pools, the mild cases escape notice or their numbers are so great as to make restriction unwarranted. We must then recognize infection as present in these places, and the problem of control is one largely of personal prophylaxis.

The ideal prophylactic agent must be therapeutic as well as preventive, since the control of our gymnasium exposures will not prevent active cases from outside exposure. For application to children it must be simple, easily enforced, cheap, quickly applied, non-irritating and preferably without staining qualities. The use of solutions to paint on the feet are not practical for children, because of the supervision necessary and the time consumed. After due consideration we decided to restrict ourselves in this study to the use of dusting powders and two solutions used in foot tubs, namely: sodium thiosulphate and sodium hypochlorite.

Our studies with dusting powders were carried out among high school and junior high school students. Ten different formulæ containing the most commonly acceptable fungicidal agents in varying strengths were used. All these powders were of value and some showed up particularly well. We were disappointed, however, with the study, since very few of the pupils used them conscientiously. If high school students could not be depended upon to apply such treatment, it was felt useless to recommend it as general prophylactic measure in schools.

In our study of solutions we had difficulty in securing suitable foot tubs. Those made of galvanized iron would slide readily on tile floors and accidents were caused by slipping on the smooth bottom of the pan. A tub* made of heavy rubber is ideal for the purpose. We used two tubs in both boys and girls gymnasiums where this study was made. One tub was placed at the exit from the showers and the other at the entrance to the pool.

The sodium hypochlorite was supplied under the trade name of "Sterilite" (see footnote) and was of such strength that adding a pint of stock solution to four gallons of water made a final solution containing 0.6 per cent of sodium hypochlorite. Osborne and Hitchcock[1] recommend that the strength of the fresh solution be increased to 1 per cent to allow wide leeway for dilution from use.

Sodium hypochlorite is a powerful bleaching agent, but we had no complaint from this source from the diluted solution. It acts as an excellent deodorant for the feet. The rather pungent chlorine odor passes off rapidly. As a further prophylactic measure the diluted solution should be sprinkled over the locker room, swimming pool, diving boards and shower room floors.

These studies with solutions were carried out for a period of three months only, being interrupted by the depression. Pro-

*Made by the T. A. Patterson Laboratories, 1571 Merwin Avenue, Cleveland, Ohio. They also have developed the sodium hypochlorite solution, sold under the trade name of "Sterilite," which was used in this study.

longed observations should be made, and other preparations tried. Our observations cannot, therefore, be taken as final.

All the pupils in a school were examined and classified at the beginning of the study. The solutions were used on the morning gymnasium classes and the afternoon classes left untreated as controls. Detailed charts showing comparative results were compiled. For brevity we have summarized these results.

Sodium thiosulphate was used in approximately a 15 per cent solution. From our experience it proved practically useless when applied in this manner. It is true that we were checking its therapeutic effect rather than its prophylactic action. Previous clinical experience would show that it has only mild fungicidal properties, and spectacular results could hardly be expected from the application of the solution for only a few moments several times a week.

The results with sodium hypochlorite, on the other hand, were very promising. Our observations are in confirmation of Osborne's[1] experiences in the Buffalo City High Schools. The results while not miraculous were of decided value. The method of use has the advantage of ease of application that makes it suitable for public school use. Such a solution showing some therapeutic value when applied for a few moments, only, several times weekly, should be highly efficient as a prophylactic agent. It seemingly offers us the most effective prophylactic measure suitable for communal use which we have tried. We believe that it would control the problem of acute epidermophytosis in school children if continuously and effectively used.

BIBLIOGRAPHY

1. Osborne, E. D., and Hitchcock, B. S.: The prophylaxis of ringworm of the feet. J. A. M. A., 97:453 (Aug. 15), 1931.
2. Ruggles, E. W.: Some phases of epidermophytosis. N. Y. State J. Med., 29:740-743 (June 15), 1929.

ACUTE CEREBRAL INJURIES

H. E. RANDALL, M.D.†
FLINT, MICHIGAN

To introduce the subject of traumatism of the brain I shall briefly present four cases seen in the last year, which either illustrate the pathology that occurs, the difficulty of exact diagnosis, or the therapeutic care of these cases. It is almost impossible to classify cerebral injuries into types because the symptoms that do occur are largely due to the increased intracranial pressure. The fracture of the skull is the minor while the brain injury is the major issue. Neither can cases be grouped by the results of treatment. The older surgeons were correct in saying that one may die from a slight injury and recover from a severe one.

Case 1.—(Case of Dr. Edgerton.) A lad, J. D., aged six, was injured by an automobile on April 28, 1921. He was brought to Hurley hospital in a comatose condition. There were numerous small abrasions about the face and head, and the lower jaw was broken in the left anterior region. The patient was bleeding from the nose and mouth. Some of the teeth were loose and one was pulled out to prevent swallowing. The pulse rate was 110 and the blood pressure was 134 over 70. The next day the ophthalmic findings were two diopters of edema of both discs. The pupils were pin point in size but had been dilated with homatropine 2 per cent. Examiner reported "Believe boy will ride through without operative interference." Spinal puncture was negative, and no fluid was obtained.

He died the next day with a temperature 108 and pulse 172. A complete autopsy was permitted and the brain findings were as follows: "Numerous contusions in the deeper surface of the scalp which extend downward to the periosteum of the skull, there is no fracture of the vault, the dura is intact, the brain is very soft, markedly congested and edematous. In the right occipital fossa there is a small amount of clotted blood. Cerebral fluid scant. Brain was removed. An examination of base of skull reveals no fracture in any of the fossæ. Section of the brain reveals a small amount of hemorrhage but is markedly edematous and congested throughout. There is a fracture of the left jaw. The rest of the post mortem examination is negative except for a considerable amount of hemorrhage surrounding the kidney and within the capsule. The hemorrhage involves the right adrenal. The kidney weighs 75 gm."

GENERAL COMMENT

This boy died of cerebral concussion with edema and shock, with capsular hemorrhage of the kidney. There were no fractures of the skull, and the cause of death was gener-

†Dr. H. E. Randall is a graduate of the Detroit College of Medicine in 1897. He was House Surgeon at St. Mary's Hospital, Detroit, and is Ex-President of the Genesee County and Michigan State Medical Society.

al cerebral edema which is the typical pathology of all cerebral injuries. Fraser, years ago, called attention to the fact that cerebral injuries with a slight amount of cerebrospinal fluid have a higher mortality than those cases in which there was a more abundant amount of fluid. Rand, in a post mortem study of sixty-one cases of head injuries, found: that the most obvious gross changes found in the severe brain injuries are an increase in its fluid content, the brains appear swollen and in certain circumstances are probably actually heavier than normal. The excess of cerebral spinal fluid may be demonstrated clinically. The source of the fluid is assumed to arise from the choroid plexus. In fatal cases the fluid is in the peri-vascular and peri-cellular spaces.

Case 2.—(Case of Dr. Brasie.) An adult, forty years of age, who was brought to Hurley hospital May 31, 1931, and died on the following day. He was struck by a pitched baseball just above the left ear. He was conscious for a few moments while he watched a few innings and then again lost consciousness. There were no external marks or abrasions over the body. An examination of the head showed no scalp lesion but a depression was felt in the left temple region. On entrance to the hospital he was given intravenously 50 c.c. of a 50 per cent glucose solution. The pulse on entrance was 120 and blood pressure 145 over 80. The respirations were 28 per minute. Six hours later the blood pressure was 150 over 80, and the pulse rate slowed down to 56 per minute. Patient had slight twitching of left leg at times, and remained unconscious. The glucose 50 per cent solution was repeated twelve hours later. Spinal puncture at first under great pressure showed a slight tinge of blood, but was clearer toward the end of the spinal tap. Two hours later another 50 per cent solution of glucose was given. Pulse was then 140, respirations 36. He died with a temperature of 101 and a mounting pulse eighteen hours after his entrance to hospital.

Post mortem examination showed a depressed fracture of the skull of the left temporal region, rupture of the left meningeal artery, with edema and laceration of the brain tissue. Sectioning of the brain showed edema of base of cerebellum. The fracture of the skull extended from the left temporal region down through the middle fossa and forward through the great wing of the sphenoid. Death in this case was due to edema and laceration of the brain with rupture of middle meningeal artery.

GENERAL COMMENT

In the first case reported there was increased intracranial pressure without the presence of a fracture, while in this case there was a fracture involving the base of the skull. The tinged fluid in the spinal tap showed that we had a subdural hemorrhage. The amount of shock precluded a decompression operation and litigation of the middle meningeal artery. The fracture of the base was only of interest because we know the prognosis is not as favorable as those of fracture of the vault. Fractures of the base of skull are dangerous because it provides an entrance for infection and also because the force of the blow is greater.

Case 3.—(Case of Dr. Jones.) On September 5, a little child, five years old, was struck on the head by an iron swing. She was knocked unconscious, but when brought into the house became conscious. Two days later she was nauseated and vomited. She was brought to Hurley hospital four days after being injured. Reflexes were normal and an examination of the eyes was negative. X-ray examination by means of stereoscopic films showed a large circular fracture of the left parietal bone just posterior to the coronal sutures, and to the left of the sagittal. There was found a large depressed fracture which made pressure on the brain. Operation showed a depressed area 3 by 4 inches which was elevated. She made the conventional "uneventful recovery" and was dismissed from the hospital after the 11th day. Nine months later she has had no symptoms of any sort.

Case 4.—(Case of Dr. Goering.) On May 5, 1931, master George McP., aged six, had just recovered from a purulent otitis media and a bronchial pneumonia, when he was struck by an automobile and was brought to Hurley in an unconscious condition. There was a profuse hemorrhage from the left ear and dry blood in both nostrils. The right side of the upper lip was swollen, and there was a swollen area behind the left ear in the region of the mastoid. The blood pressure was 140 over 100. Pulse rate 110. Temperature normal. The next day the pulse was 160, and temperature 103.5 degrees. The respirations were up to 45. The ophthalmic examination the same night of entrance to the hospital showed swelling of lids, and small round pupils which dilated sluggishly to light. The fundus examination showed no edema but the retinal vessels presented a slight amount of congestion. Stereoscopic x-ray plates showed a fracture of the base with a fracture line from near the midline running toward the left mastoid. There was probably a second fracture in the left temporal region just above the left ear. There was also a fracture of the zygoma on the right. The patient remained unconscious for eight days, when he spoke once. There was a weakness of right arm and leg; he used left hand easily. On the second day after injury he showed symptoms of medullary compression and death seemed near. But a spinal puncture and the removal of 15 c.c. of blood-tinged fluid had a magical effect; on the third day the blood pressure was 116 systolic, 80 diastolic, when another spinal puncture was done. This with dehydration and limiting his water intake to 30 c.c. a day, combined with use of magnesium sulphate by mouth and rectum led to recovery, when he was allowed to go home.

The two children who recovered have shown no symptoms since leaving the hospital.

Morehead, commenting on skull fracture in children, says that they are remarkably free from fatalities remote and distant. Dr. R. L. Dickinson, formerly superintendent of the epileptic colony at Wagamaga, states

that epilepsy following brain injuries occurs only in those who have an epileptic heredity, when the form is always Jacksonian.

The routine examination of patients sustaining brain injuries requires the hourly recording of the pulse rate, respiration, and blood pressure. After twelve hours an examination is made to determine if there be congestion, optic edema, and the amount of edema. In brain injury cases the best procedure is a spinal puncture, and if the pressure is above 12 mm. in adults a diagnosis of increased intracranial pressure is made. If the spinal fluid is blood tinged, a diagnosis of subdural hemorrhage is made. The old clinical diagnosis of concussion, contusion, or laceration is not of much service today; they are terms of convenience only to explain conditions to relatives and friends. Fractures unless depressed are also of minor interest except for hospital records and for use in court. We have been using for years, since it was recommended by Doctor Peet, the 50% solution of glucose, which is a valuable agent, not only for shock, but also to reduce the intracranial pressure. Spinal tap and dehydration are the two most important recent additions to our therapeutic resources. A few cases may require a decompression operation but the necessity for this is growing less. Not over 10 per cent of all cases need operation since a more rational treatment has been instituted and the death rate has fallen in consequence. With caffein sodium benzoate given subcutanously or intravenously or with magnesium sulphate solution given by this method I have had no experience. Morphine, nitrates, adrenalin solution should be avoided in the care of these patients. The conservative methods of today not only give a lower mortality but fewer after-symptoms.

Shock in head injuries leads to much confusion in diagnosis and treatment. Typical head injuries without shock have a slow pulse and a high blood pressure. In shock, the opposite symptoms, a rapid pulse and a low blood pressure. Shock requires fluids, intracranial pressure cases require a low limitation of fluid intake. Morphine is useful in shock but is contra-indicated in head injuries by masking the symptoms. The head should be lowered in shock, and raised in head injuries. We are all agreed that no operation should be done when both shock and head injuries are present. Temple Fay advocates spinal puncture daily with a fluid intake of 20 to 30 ounces a day, the latter, if blood be present, in a spinal tap. It is of the utmost importance to keep the patient in bed. I recall a case which I thought had made a recovery and the patient was allowed to get up, took a few steps and died immediately. Bagley, Danby, Sach, and others do not advise spinal puncture. But I can see no harm if done and reasonable precautions are taken.

Temple Fay of Philadelphia says: "During the past few years it has become clear that the early administration of prompt and efficient treatment of severe injuries to the brain, not only insure the patient of a better chance of survival, but determine to a large degree the resultant mental disability."

Fay also advises that for three months these patients' fluid intake be limited to thirty-two ounces a day, to eliminate headache, dizziness and psychic changes.

SUMMARY

1. It has been found that of the fatal cases over half have died within the first twenty-four hours following injury.

2. The general mortality of all cases in most hospitals reporting for several years has been from 30 to 40 per cent.

3. Operations are rarely needed and should only be done in definitely indicated cases. In depressed fractures hemorrhage of the middle meningeal artery, and uncontrolled intracranial cases with high optic edema and then only if patient is not in shock or has not reached the stage of medullary edema, indicated by rising pulse, temperature, and respiration, should decompression be done.

4. Limitation of fluid intake to 30 ounces per day glucose 50 per cent intravenously for a few hours after injury, spinal taps as indicated have not only lowered the mortality but have resulted in much better ultimate results to our traumatic brain cases.

5. Edema is the pathological picture following brain injury.

A PREFACE TO ENDOCRINE-THERAPY*

NORMAN F. MILLER, M.D.
ANN ARBOR, MICHIGAN

Perhaps the most outstanding scientific achievement of the past two decades has been the advancement in the field of edocrinology. Each year has seen chapters added to the fascinating and mystifying story of hormonology. Scientific sleuths have doggedly investigated clue after clue and pieced together these scraps of information until it is now possible to visualize the outlines, in some respects fantastic, of what may prove to be the final chapter of the story.

The unswerving efforts of those who have toiled to reveal the secrets of this fascinating aspect of scientific medicine well deserve our unstinted praise. Nor should we forget the majority whose less fruitful efforts have helped make possible the solution of this mystery.

Although the tireless labor of the self sacrificing scientists may never be duly recognized, the same cannot be said of the results of their work. The often miraculous power of some of these gland preparations has and is being amply heralded. The medical literature abounds with communications and details of critical studies both good and bad. These discoveries in the newer science have made the general medical profession somewhat gland conscious and fortunately so, for it is true that each day sees new achievements through careful administration of properly assayed gland preparations.

The medical press is not alone in this work of enlightenment. We find that the scientific worthiness of endocrinology has not entirely obscured its commercial possibilities. The production of gland products on a large scale is now a well established business. To the great pharmaceutical houses thus engaged no small thanks is due. When preceded by careful study and when controlled by proper assay and laboratory experiment the cost of production is often far beyond the most visionary hope of recompense. Yet availability of trustworthy gland substances is a boon to both physician and patient.

If physicians were familiar with what is known about the more common gland deficiencies and what might be accomplished by careful administration of properly prepared and tested products, our hopes would be nearing fulfillment. Unfortunately, such Utopianism does not exist. No one knows all about endocrinology, and few practicing physicians really know more than a beggar's share of the common indications for, or effects and quality of, the preparations they prescribe. Such a gross lack of understanding on the part of the physician is easily understood and seldom incriminating. Except to relatively few the function and more particularly the dysfunction of the glands of internal secretion is still quite a hazy matter. We continue to grope in the darkness and only here and there is the light more than a mere reflection. Unfortunately, the busy physician finds little time to wade through the masses of data on gland dysfunction and its treatment. This, added to the fact that he is conscious of his weakness in endocrine knowledge, has brought about the unfortunate situation noted today, wherein the practitioner of medicine has become the apprentice and henchman of an energetic but perhaps well-meaning gland industry. The high pressure detail men, many of whom are not even remotely scientific, find the average befuddled practitioner an easy prospect for gland barter. Armed with a few facts and a great amount of palaver, orthodox and otherwise, the aggressive salesman has little difficulty in convincing the doctor of the quality and need for his particular product. The physician knows something about gland conditions but, though his knowledge is greater than that of his solicitor, it is not enough to give him that feeling of confidence and sureness that comes with adequate understanding. It is bad that the average physician is dominated by clever, energetic, but perhaps well-meaning agents of our endocrine industry. It is deplorable that he has lost self-assurance and in his desire to rebuild this confidence it is unfortunate to find that pseudo-scientific detail man has become his sheet anchor. But it is even more unfortunate that the physician

*Chairman's address, Section on Obstetrics and Gynecology, Michigan State Medical Meeting, September 13, 1933.

should unhesitatingly prescribe for his patients on the basis of such freely administered equivocal data. Such practice tends to work harm in many ways. For the patient it (generally) means considerable expense without recompense (though not always). Indeed, the promiscuous use of gland preparations might actually work serious harm to the patient were it not for the fact that many of the gland substances are quite impotent. For the physician such practice means lessened self-confidence and, if his expensive therapy fails, a loss of his patient's confidence.

Proper endocrine therapy means first of all a knowledge of the established facts about glandular dyscrasia coupled with a recognition of the fact that endocrinology is a new field—a vast and important branch of medical science—still largely hypothetical and in the process of development. Glandular dyscrasias may be frequent, but, so far gland therapy has proved of value in relatively few (thyroid—ovary).

A preface to endocrine therapy, then, must lay emphasis on the need for greater factual knowledge and less blind acceptance of visionary sales talk as a basis for assuming the existence of a glandular dyscrasia, for determining the need for remedial gland therapy, and for dispensing costly substances of dubious value.

OVARIAN DISEASE, ESPECIALLY IN RELATION TO THE PAINFUL BREAST*

JOSEPH E. ROSENFELD, M.D.C.M.†
BATTLE CREEK, MICHIGAN

About the year 1900, a meeting of the Michigan State Medical Society was held in Detroit. At that meeting a well known surgeon, who is now in his decadent years, rather proudly reported 118 consecutive cases of bilateral oöphorectomy. With this statement as a climax to his paper the speaker sat down and benignly waited for the discussion. About the first discussant on his feet was the senior Dr. J. H. Carstens, who said, "Doctor, I would like to ask whether you are reporting on surgery of human beings or the dehorning of cattle."

This question asked thirty-odd years ago raises in one's mind the thought as to whether or not all of us in this day and age have due regard for the full influence and importance of the ovary.

Much progress has been made since the pioneer work of J. Marion Simms in the field of Obstetrics and Gynecology and the epoch-making work of the Kentucky surgeon McDowell in performing the first operation for removal of an ovarian tumor. Unfortunately, however, thinking reasonably well in all lines of medical endeavor we sometimes continue to see our patients' problems in a gross way and not along lines of physiological reasoning.

Through the splendid educational work done in the past few years, chiefly due to the inspiration of Bloodgood, women are coming early for diagnosis in breast pain. With the description of Sir Lenthal Cheatle,[3] in 1928, of "Mazoplasia" our chronic mastitis of yesterday is being less commonly diagnosed, though the diffuse pain and generalized nodularity of the breasts continue.

Bloodgood[1] states that he has never found a malignant tumor in a woman presenting herself for examination of her breasts for pain only.

The particular complaint of pain is coming to our attention more and more frequently and constitutes a real problem. These women are not neurotic, but present for our inspection, breasts which are swollen and tender and in the extreme instances exuding a milky secretion. The treatment for this condition is more in the nature of remote control rather than local. These mam-

*Read before the Section on Gynecology and Obstetrics, Michigan State Medical Society, Grand Rapids, Sept. 13, 1933.

†Dr. Joseph E. Rosenfeld is a graduate of McGill University, 1922; served his internship at Blodgett Memorial Hospital, Grand Rapids, 1922-1923; was Surgical Assistant to Dr. R. J. Hutchinson, Grand Rapids, 1923-1924; and has been in private practice and general surgery since 1924 in Battle Creek. He is at present Chief of Staff, Nichols Memorial Hospital, Battle Creek.

mary glands take on a pathologic aspect due to ovarian distress primarily. The condition may be related to the menses or may occur occasionally at any time or not uncommonly be persistent. It is a clinical fact, however, that the menstrual history of such patients is suggestive throughout of a hypofunction of the ovary.

It is my purpose to acquaint you with the clinical fact that in addition to the already existing hypofunction, there is a definite further handicap of sclero-cystic disease of the ovary with its consequent destruction and replacement of normal stroma.

Much of the data presented here is based on clinical observation and the type of treatment suggested is in some instances highly empirical. Yet I hope to leave with you the thought that some apparently baffling problems of everyday practice with female patients are amenable to two methods of treatment, one of which at least any man may use with reasonable hope of success.

The ovary is structually composed of a stroma and an enveloping membrane, the tunica albuginea. "The stroma is peculiar in that it contains no fibres and is made up of elongated and rounded cells. The cells are of two distinct types:

"1. An interstital cell allied to and arising from the germinal ephithelium.

"2. The connective tissue cell derived from the connective tissue of the Wolfian body and allied to the fibrous tissue group.

"The Graafian follicles, some 30,000 in number, are all present at birth, and none are formed at a later date. Of these only about 500 become converted into corpora lutea, so that 29,500 never reach full development. These follicles gradually undergo a process of degeneration or atresia. Such an atresic follicle is much more liable to pathological changes than the corpus luteum itself."[2]

In the light of our present knowledge the Graaffian follicle represents the internal secretion portion of the gland yet clinically, as will be shown later, the remainder of the stroma has also a definite function and clinical application. In its normal state the stroma acts as an antagonist to the luteal function. The clinical application of this knowledge will be apparent. The total function of the ovary is concerned with two main objective: (1) Menstrual cycle; (2) the sexual characteristic both physical and mental.

It is true with this organ, as with all glands of internal secretion, that it is strongly influenced by the remainder of the endocrine system. While the ovary is the final portal for the regulating hormones, it has been my experience in some cases that the judicious use of at least one other gland extract is of value.

The parallel changes of the Graafian follicle and those in the breasts have been well and accurately described by Rosenburg.[7] He studied the breasts and ovaries of women in relation to the menstrual habit and concluded that the corpus luteum of menstruation as well as that of pregnancy causes a physiologic hypertrophy of the mammary glands. Clinically, this state gives rise to fulness, tension and sometimes pain in the breasts during the premenstrual phase. Histologically, this phase is characterized by budding processes in the epithelium that are also characteristic of the early states of pregnancy. If no pregnancy occurs, the budding processes regress until in the interval only the ducts are present. If the corpus luteum is absent, as in amenorrhea, hypertrophy does not take place and the budding processes do not form.

From various observations it would appear that the corpus luteum, when functionally active, dominates the ovarian metabolism and inhibits the formation of the internal secretion which is an essential factor in producing proestrum and estrus besides hindering the maturation and rupture of the Graafian follicles.[5]

Marshall[5] has pointed out that under certain abnormal conditions the corpus luteum of the nonpregnant cow or heifer may persist for a prolonged period. It has been shown that the nonoccurrence of estrus is due to the persistent corpus luteum. Thus if the corpus luteum is removed or destroyed, estrus will generally recur within from three to eight days and the animal may be caused to breed.

Parkes and Bellerby[6] have demonstrated that the ovary during lactation has a considerable estrus-inhibiting power and concluded that the effect was produced by the persistent corpora lutea of lactation which occurs in the mouse.

Thus the persistent corpus luteum of pregnancy inhibits the menstrual flow which

stops during gestation. Also, the persistent corpus luteum of menstruation which occasionally occurs inhibits regression of the budding processes in the breast. Then, going a step further, the corpus luteum of menstruation active without its normal antagonists in balance takes on a prolonged and accentuated effect, similar to a persistent corpus.

From a pathological standpoint the common affections of the ovary are inflammation, cysts and tumors. Of the tumors 80 per cent are cystic.[2] The follicular cyst, retention cyst or hydrops follicularis are by far the commonest occurring in what is known as sclero-cystic disease of the ovary or the small cystic ovary. It is this type of disease that is of definite bearing in the condition of painful breast rather than the large multilocular cystadenoma or the dermoid variety. Also of much importance is the inflamed ovary with its subsequent contraction due to actual scarring or fibrous tissue formation.

Now, just what is the practical significance of this physiology and pathology from the angle of everyday office practice? Simply this: The solid bodied ovary, unless overwhelmed by harboring a large cyst, does not enlarge proportionately to the pathology it contains in any given instance. In other words, its stroma is replaced to a great extent by small cysts or scar, but the corpus luteum function remains with but little repression in most instances.

It does not necessarily follow that all girls or women with cystic ovaries have painful breasts but I do not hesitate in making the statement that conversely this is true in 75 per cent of the cases. The remaining 25 per cent apparently are concerned with a more destructive type of ovarian disease in which replacement of the destroyed tissue by extrinsic means does not relieve the clinical condition.

Cutler's[4] very excellent treatise on this subject shows in his case reports a higher incidence of purely medical relief than I have observed. My own experience has been that not over 50 to 60 per cent of the patients treated conservatively have obtained complete or marked relief. The cases that have subsequently come to surgery have been so helped by enucleation of cysts, where possible, or massive excision of wedges of cystic tissue followed by careful repair that the total of the clinically cured slightly exceed 75 per cent.

Reasoning back to the part that the corpus luteum plays in estrus inhibiting effect the rational line of treatment would seem to be, as Cutler[4] suggests, the use of ovarian residue in five grain tablets, three or four times daily, beginning fifteen days before menstruation and stopping at the onset. Certainly the results obtained are worth at least the trial. In the majority of my cases, which number twenty, in all types of treatment approximately half, or nine, have had marked relief from the use of ovarian residue and in two cases the addition of 1 c.c. of antuitrin given hypodermically once daily for three days at the height of the pain plus the ovarian therapy proved effective. Four of the nine patients have gone approximately a year with complete relief following six months of treatment. Three more are still seen at intervals of about four months, treated one month and relieved for the succeeding four months. In the two cases in which ovarian residue and antuitrin were both used the patients have been relieved for only approximately three months following four months' treatment in one case and five months' treatment in the other, so it is too soon to state with any accuracy how permanent is their relief.

In the nine surgical cases operation was not done primarily to relieve the painful breasts except in one instance when it was so done. These patients have been operated on for from three years to as recently as four months. The pathology found was nearly identical in all, except two cases of chronic pelvic inflammatory disease where the ovaries were contracted from scar. In all instances cysts were enucleated where possible or wedges of cystic ovarian tissue removed, followed by careful apposition and repair. The ovary seems to tolerate a clean surgical scar with a minimum of resentment as exhibited in later activity. Eight of these surgically treated patients were completely relieved of breast pain and one had marked improvement.

SUMMARY AND CONCLUSIONS

1. Prolonged hyperactivity of the corpus luteum is the primary factor in painful breasts.

2. The ovarian stroma is the normal an-

tagonist of luteal activity, the two being usually in good balance.

3. Extract from the anterior lobe of the pituitary is antagonistic to the corpus luteum.

4. Sclero-cystic disease of the ovary causes replacement of normal stroma without compensation permitting hyper-luteal activity.

5. Medical treatment should be entirely by gland therapy, ovarian residue being nearly specific, but antuitrin being an extremely helpful adjunctive.

6. Routine pelvic surgery should always have in mind not only local symptoms, but the symptom of painful breasts. In addition there may be the occasional case where this symptom is so outstanding that, following careful pelvic examination, it alone should suffice as the justification for surgical exploration of the pelvis.

LITERATURE

1. Bloodgood, J. C.: Am. J. Med. Sci., 179:27 (January, 1930.
2. Boyd, Wm.: Surgical Pathology. 2nd Ed., p. 578.
3. Cheatle, G. L.: Chronic mastitis. Arch. Surg., 17:535 (October), 1928.
   Precancerous Conditions of the Breast. Cancer Rev., p. 81 (February), 1930.
4. Cutler, Max: J. A. M. A., 96:1201-1205 (April 11), 1931.
5. Marshall, F. H. A.: Physiology of Reproduction. Ed. 2. London, Longmans, Green and Co., 1922. Internal secretions of the reproductive organs. Physiol. Rev., 3:335-346 (July), 1923.
   Marshall, F. H. A., and Hammond, M. A.: The functional correlation between the ovaries, uterus and mammary glands in the rabbit with observations on the estrus cycle. Proc. Roy. Soc., 87:422-440, 1914.
6. Parkes, A. S., and Bellerby, C. W.: Studies on internal secretion of ovary: III—Effects of injection of estrin during lactation. J. Physiol., 62:301-314 (January), 1927.
7. Rosenburg, A.: Ueber Menstruelle, durch das Corpus Luteum bedengte Mammaveranderungen. Frankfurt, Ztschr. f. Path., 27:466, 1923.

THE COMMERCIAL EXPLOITATION OF VITAMIN D

HAROLD R. ROEHM, M.D.
BIRMINGHAM, MICHIGAN

The lay treatment of disease has in the past few years reached a climax in the prescription of various vitamins in a "direct from producer to you" fashion by the various manufacturers of packages of food for both human and animal consumption. These food-handling concerns have appealed to the public after the fashion of cut-rate mail order houses, regarding the physician as a "middle man" who may be eliminated to the profit of those concerned. Vitamins lend themselves very handily to this type of business promotion, as they have no physical personality of their own and thence can be discussed by anyone who can pronounce the word.

Vitamin D has been given the front rank in popular exposition and has been made a "best seller" by every Tom, Dick and Harry who has a food substance or pharmaceutical preparation to sell. Fear is, of course, the basis for the sale of such goods, and the curse of rickets is held over the heads of the children of every parent who does not purchase such and such a product.

The list of Vitamin D-containing substances sold for popular consumption and advertised directly to the laity is becoming appalling: cereals, bread, tomato juice, canned vegetables, irradiated yeast, milk, certain brands of viosterol, haliver oil, cod liver oil, and various malt preparations, concentrate tablets, even soap chips, plus the appealing, shiny machines for carbon arc, quartz light, cold quartz light and electric irradiation.

The apparent presumption that the various manufacturers are working on is that Vitamin D from one source is exactly like that from another source, and they publish advertising pictures showing so many drops of their preparation equaling so many teaspoonfuls of cod liver oil. That such presumptions are fallacious should be common knowledge. Clinically one does not get the same effects from 100 Vitamin D units of viosterol as from 100 Vitamin D units of cod liver oil, and neither have the same effect as 100 Vitamin D units of irradiated milk. As far as I can determine, the reason for the difference in action of Vitamin D from different sources is not understood. Holmes[4] points out that viosterol is not clinically the same as cod liver oil D. Barnes[2] has produced some evidence to the same end. Mitchell and Coley[6] confirm these findings.

There are many other published articles that tend to confirm the difference of action of Vitamin D produced by irradiation of various substances and the so-called natural Vitamin D. It is further assumed by various vendors that Vitamin D alone is the single factor in the prophylaxis and cure of rickets. This is not by any means the unanimous opinion of the medical profession. Vitamin D produced by irradiation given in sufficient dosage does produce calcification of the bony epiphyses, and at the same time may produce rarefaction of the shaft of the bone, and, as Prather, Nelson and Bliss[7] point out, there seems to be a difference in favor of cod liver oil in regard to growth and development. My personal experience is that a child who tolerates adequate doses of cod liver oil is in much better condition than one who is given some substitute.

Food and proprietary medicine vendors in general have so titered their products that the daily intake is supposedly equivalent to three teaspoonfuls of cod liver oil daily, assuming this to be the universal prophylactic amount and implying that a ricketless Utopia can be made by ingesting the stated amount of their product.

There are three methods of standardization of Vitamin D content and no agreement at present as to the best method. An international standard is greatly to be desired. It has not yet been established that concentrates of cod liver oil in tablet form supply "sunshine" or prevent colds or other infections. Two manufacturers are particularly offensive in such advertising claims. One concern very amusingly goes to church on Sunday over the radio advertising its love for the medical profession and on Monday advertises in many periodicals how by taking their sunshine tablets you can avoid the physician.

The advertising claims of many commercial concerns are not justified and in many cases are absurd. It is ridiculous to state that a certain amount of any preparation will absolutely prevent or cure rickets in all cases, at the same time doing no harm, and yet this is at least implied in most advertising.

Everyone experienced in the treatment of children has seen patients without a single stigma of rickets who never have had any form of Vitamin D except that which they have obtained from their normal diet or from whatever incidental amount of sunlight they have received in their normal play. There is an individual susceptibility or resistance to calcium deficiency apparently.

A factor that the public and the manufacturers have seemed to overlook is the possible dangers accompanying large doses of Vitamin D. Kreitmann and Hintzelmann,[5] Shol, Goldblatt and Brown,[8] Vandeveer,[12] Sweeny and Smith,[10] Spies and Glover,[9] and many others, have demonstrated that hypervitaminosis can be produced in animals and result in death after calcification of parts of most of the parenchymatous organs and circulatory system. Thatcher[11] reports the death of an eighteen months old child from a similar hypervitaminosis. True, the dose of Vitamin D must be many times the therapeutic one and given over a long period of time; but picture the child who may either not need excessive antirachitic treatment, or who may have an idiosyncrasy, arising in the morning and having for breakfast irradiated tomato juice, irradiated bread, Vitamin D milk, followed by a dose of super or concentrated cod liver oil or some drops of haliver oil or viosterol, then going out to play in the sunshine, or in the winter under a home sun lamp, and continuing to ingest irradiated products or other forms of Vitamin D at two other meals during the day. What will the developments be? Perhaps the child, like Lot's wife, may become a pillar, but of calcium instead of salt and without a backward look. This picture is, of course, somewhat exaggerated, but if one is familiar with the militant enthusiasm with which some maternal parents adopt certain partly-understood medical procedures, the exaggeration does not appear to be so great. The warning as to the end-results is best given in the words of Abt,[1] whose sane judgment has a universally high regard: "It is true that we are thoughtlessly permitting or advocating the use of Vitamin D-containing remedies and foods in large doses. It may take twenty or thirty years, possibly not, to appraise the harm which may have been done."

SUMMARY

The present high pressure commercial campaign by food manufacturers, pharmaceutical houses, manufacturers of irradiating apparatus and milk dealers to sell Vitamin D directly to the public is to be condemned. Uncontrolled administration of

Vitamin D is not without attendant dangers. The campaign encourages self-medication, whose evils are already widespread enough. The implications used in advertising are often specious and the claims are usually unsubstantiated. That some of the products have their place is granted, but that place is not in the hands of the public, who too often feel that "if some is good more is better." It is a far cry from the controlled experiments of Hess[3] with irradiated milk to the milk peddler who tells the mother all about the prophylactic and curative value of Vitamin D milk and who, in this community at least, has gone from door to door soliciting the use of such milk.

We are sadly in need of adequate and universal standardization and supervision of Vitamin D-containing food products and the direct sale and advertising of such products to the public should not be permitted.

BIBLIOGRAPHY

1. Abt, I. A., and Abt, A. F.: Pract. Med. Series—Pediatrics, 1932, 490-491.
2. Barnes, D. J., Brady, M. J., and James, E. M.: Comparative value of irradiated ergosterol and cod liver oil. Amer. Jour. Dis. Child., 39:45 (Jan.), 1930.
3. Hess, A. F., and Lewis, J. M.: Milk irradiated by the carbon arc lamp. J. A. M. A., 88:647-653 (Aug. 20), 1932.
4. Holmes, A. D.: Are Vitamin D and irradiated ergosterol identical? New England J. Med., 204:211-214 (Jan. 29), 1931.
5. Kreitman, H., and Hintzelmann, V.: Sclerosing effect of large doses of irradiated ergosterol on arteries. Arch. of Exper. Path. u. Pharmakol., 137:203-214, 1928.
6. Mitchell, F. T., and Coley, S. W.: The prevention of rickets. Trans. A. M. A., 1932, Section on Ped., 173-178.
7. Prather, E. O., Nelson, M., and Bliss, A. R.: Viosterol. Comparative observations. Amer. Jour. Dis. Child., 42: 52 (July), 1931.
8. Shol, A. T., Goldblatt, H., and Brown, H. B.: Pathological effects upon rats of excess ergosterol. J. Clin. Investigation, 8:505-531 (June), 1930.
9. Spies, T. D., and Glover, E. C.: Irradiated ergosterol. Renal lesions produced by massive doses. Am. J. Path., 6:485-498 (July), 1930.
10. Sweeny, H., and Smith, E.: Irradiated ergosterol. Experimental arteriosclerosis in rats. Amer. J. Physiol., 95:620-625 (Dec.), 1930.
11. Thatcher, L.: Hypervitaminosis D with report of fatal case in child. Edinburgh Med. Jour., 38:457-467 (Aug.), 1931.
12. Vandeveer, H. L.: Hypervitaminosis and arteriosclerosis. Arch. Path., 12:941-955 (Dec.), 1931.

GREEN PASTURES NEARER HOME*

W. J. STAPLETON, JR., M.D.

DETROIT, MICHIGAN

In the seaport of St. Malo, 'twas a smiling morn in May,
When the Commodore Jacques Cartier to the westward sailed away;
In the crowded old Cathedral all the town were on their knees
For the safe return of kinsman from the undiscovered seas;
And every autumn blast that swept over pinnacle and pier,
Filled manly hearts with sorrow, and gentle hearts with fear.
—Jacques Cartier by THOMAS D'ARCY MCGEE.

On a stormy day in the year 1534 Jacques Cartier was driven into the Bay of Gaspé. He had been sent by that gay monarch Francis I of France to explore the "Newfoundland" where the Breton and French had been fishing for a quarter of a century. He did as he was told and planted the *fleur-de-lis* in what was later known as New France. Cartier made several other voyages all of which are recorded in history. He described Labrador as "The Land That God Gave Cain"; it certainly is a land of desolation. Today there is a little town called Gaspé on the bay of the same name, a quiet little place noted for its fishing, especially for its salmon. The Gaspé salmon is considered by epicures the finest of its kind. It is interesting to note that the first contingent of Canadian troops sailed from Gaspé Bay for their glorious part in the Great War.

As with many others, "Old Man Depression" had the effect of curtailing our yearly trip to Europe, so instead, we cast about for "Green Pastures Nearer Home." We had already made several trips to Canada, going as far east as Riviere de Loupe and down through Quebec and New Brunswick to Frederickton, to St. Johns and across the Bay of Fundy to Digby; to Annapolis-Royal, Yarmouth, up the East coast to Halifax and the Evangeline country. A grand trip we thought at the time, but a magazine article on the Perron Highway which was in 1932 opened along the St. Lawrence River

*Dr. Stapleton has already contributed a number of themes under the heading "The Doctor's Log," giving an account of his summer vacations, which have been spent for the most part in Europe. The past summer he and Mrs. Stapleton visited some of the least frequented territory nearer home. The reader will agree that his "green pastures nearer home" are as interesting as the distant fields.

to the Gulf, around the Gaspé, the Bay of Chaleur and down through New Brunswick intrigued us and we went to the Detroit Automobile Club for literature on the subject. We were supplied with maps and booklets provided by the Provincial Government of Quebec and a most interesting, comprehensive article written by Mr. W. B. Backman entitled "Eleven Days." I heartly recommend Mr. Bachman's "Eleven Days" as a guide which we followed most of the way. Having gone over the provincial highway to Montreal and Quebec several times, we decided to go East by way of Port Huron, through Ontario, the Garden of Canada, to Rochester, the Kodak city. From there we proceeded north to Oswego, Watertown and into the beautiful Adirondacks, where we stopped at Saranac to visit the famous Trudeau Sanitarium founded by Edward Livingston Trudeau. The life story of the founder is one of the interesting chapters in American Medicine. It is a beautiful as well as comfortable place high up in the pines, the most complete open air sanatorium for the rest treatment of tuberculosis in the country. The nurses have a pretty ceremony in connection with their graduation. They circle the bronze statue of Trudeau where he is shown seated on a bench overlooking the green mountains he loved so well, and each drops a red rose in his lap as she passes. The inscription on the monument reads, "Erected in grateful memory by those who have been healed here."

From Saranac we drove to Lake Placid, where we stopped for supper, which was served on a balcony overlooking the lake. The next place of interest was Plattsburg, where we paid tribute to another doctor, Major General Wood, the only physician who ever headed a line division in the United States Army. Although not a graduate of West Point, he gave us the preparedness idea. A life-long friend of Theodore Roosevelt, he rose rapidly in the service, becoming Governor General of the Philippines. He was even mentioned for President of the United States. The usual summer training camp was in session at Plattsburg.

We crossed over into the Province of Quebec at Rouses Point. Immediately the whole landscape changes, the people, the language, everything becomes French. We drove around Montreal on the superb new highway named after Andre Taschereau. Montreal has much to interest doctors: the famous McGill University with its memories of Osler; the magnificent Osler Library, his gift to McGill, is a shrine for all physicians. Here his ashes rest in the midst of the books he loved so well. The hospitals and clinics of Montreal rival those of Toronto in medical interest. We followed the St. Lawrence to Three Rivers for lunch. The great pulp and paper industry of Canada is located here. If one loves old things, there is an Anglican Cathedral built in 1700, also the Ursuline Convent and the Tannancourt House built in the early part of the Eighteenth Century.

The early afternoon found us driving into the ancient capital of New France, Quebec, frequently referred to as the birthplace of civilization in North America. Unlike most cities, it has grown old gracefully, keeping the beautiful massive buildings so characteristic of the older day. It is a city of memories. One recalls "Chien d'or," a fascinating story of the priests, soldier and pioneers who brought civilization to the new world. "If you wish to bring back the riches of India, you must take them with you." A good history of a country is excellent preparation for travel in that country, so we read "A History of the Canadian People," by William Stewart Wallace, M.A. (Oxon) Librarian of the University of Toronto. The final chapter has to do with Relations with the United States, and these significant words are found, "And it has brought about a spirit of international good will and cooperation almost without a parallel in any other part of the World."

Quebec is the oldest walled city in America. The little narrow streets are full of interest and charm. The old Citadel on Cape Diamond is called the Gibraltar of America. In 1852 Laval University, the oldest French University in Quebec, was founded. Medical instruction in this institution is entirely in French. With thirty hospitals in Quebec, there is no lack of clinical facilities. From the high Plains of Abraham one gets a wonderful view down the St. Lawrence and memory recalls the famous battle of Quebec, one of the "fifteen decisive battles of the world," in which French dominion on this continent came to its end. The removal of the French as a power to be reckoned with was one of the factors that inspired the American colonists to seek their independence. It was in a boat on the river below the Plains of Abraham, the night before the

battle, that the British General Wolf quoted the beautiful lines of Gray's Elegy, finishing with the remark that he would rather have been the author of the poem than to be able "to take Quebec tomorrow."

We drove to St. Anne de Beaupré but found it not so interesting as the old church we saw twenty-five years ago. A fire a few years ago destroyed the ancient edifice with its columns of braces, crutches and other relics of patients who had been cured; the modern new building not yet complete, had not the same appeal. However, it is still a great place of pilgrimage for the devout. The forty-five mile drive there and back was full of interest, for nearly every house along the way had clothes lines on which were hung hooked rugs of every hue made by thrifty French wives during long winter evenings. Some were beautifully made, almost like paintings, but the majority were hideous as to both color and pattern.

We crossed the ferry to Levis, driving along the south side of the St. Lawrence, passing village after village, all dominated by the tall steeple of the church. The social as well as the religious life of the community centers entirely around the church. French farms are long narrow strips of land running up from the river with the houses on the shore from old times when it was necessary to live close together for protection against the Indians.

Sailing down the St. Lawrence we had often seen Rimouski but not before by land. It is the last stop for pilot, mail and airplane before entering the Gulf. We arrived at Matane for the night at the Hotel Belle Plage down on the beach, which was the best on the Gaspé trip. Mrs. Franklin Delano Roosevelt was a visitor there the week before our arrival. The Gaspé Peninsula occupies that part of Quebec, between the St. Lawrence River and the Baie des Chaleurs. It covers an area of about 11,400 square miles and, because of its physical form, has been likened to a huge finger from the mainland reaching out into the Gulf of St. Lawrence.

We were fortunate in having fine weather with never more than a haze over the Gulf. The scenery is beautiful, bleak and desolate at times, but, from now on, one gorgeous view after another. The countryside is quiet and peaceful; the road is mostly good gravel and the constant lapping of the water along the shore makes the drive around the Gaspé peninsula a most restful experience. The Perron Boulevard is the only road and it is amazing to find one's self riding along the shore one minute, and the next high up in the mountains (Shickshocks) of the northern end of the great Appalachian range. The country is devoted to lumbering and fishing. Nature has also been generous in supplying water power, which is not yet fully developed. We see and smell the cod everywhere drying on long racks. We were informed that three million dollars worth of cod is sold yearly to the United States. The way led past countless villages, small and very poor-looking with straggling weather-beaten homes of the fishermen. Many have a curious looking bake oven built in the yard of stone and earth plastered over which resembles a long narrow mound on stilts. In them is baked the most delicious crusty bread much like the bread one gets in rural France. We stopped for lunch at a little French house named Bon Accueil, meaning "Hearty Welcome," where we had real French pea soup and the most delicious fresh cod we ever tasted. It hardly seems possible that Labrador is only a hundred miles from here where Dr. Grenfell carries on his wonderful work; three hundred miles south of us is Halifax.

Like Jacques Cartier we came around the Gaspé in a storm and found refuge in an old ramshackle place known as Baker's Hotel operated by people by the same name since 1865. In conversation with one of the Baker boys I learned a bit about salmon fishing. It is interesting to know what the sport costs. First is the fisherman's license at twenty-five dollars; ten dollars for the privilege of fishing on a leased river; seven dollars and fifty cents a day for guide and canoe and of course the hotel bill besides. With salmon selling at ten cents a pound in the fish market truly it is a rich man's sport. The rod fee on the Restigouche River, which separates Quebec from New Brunswick is also twenty-five dollars a day. The habits of the salmon are unique. They go back to their native stream every year to spawn, at which time fishing is at its best. Anyone interested in the mysterious method of nature will enjoy a book entitled "The Migration of Fishes" by Louis Roule, translated from the French by Conrad Elphinstone, published by Routlege.

Leaving Baker's one morning we climbed steadily to a great height around the top of

a mountain and down the other side. At the last sharp bend which falls abruptly into the Bay of Percé we looked down upon one of the most beautiful views in America. Certainly it equals anything on the Mediterranean. A short distance out in the bay is the famous Pierced Rock and Bonaventure Island, a bird sanctuary. Looking directly down to the foot of the mountain is the charming little town of Percé. Any attempt at description on my part would be feeble but by all odds it was the high spot of our trip.

Leaving Percé we rounded the Baie des Chaleurs and came to Campbellton in New Brunswick. From here to Bathurst we had another unique experience. The road ran through a primeval forest, the great game country of New Brunswick. The Canadian Government has opened the land to settlers who were busy clearing spaces, building their log cabins for the winter; some had already planted small gardens. It brought to mind the stories of early settlement life in our own country. We passed an Indian Reservation and found about thirty small houses, all that remains of the once famous tribe of Micmac Indians.

We crossed into the United States at Calais, continuing down the Atlantic Highway through New England, where we saw many small towns, white houses with their interesting doorways, the "Greens" with band stand and soldiers' monuments. We passed Jonesport, of radio fame, and motored out to Bar Harbor on Mt. Desert Island, stopping on the way to see the wonderful miniature ship models made by Kendell K. Thompson from Egyptian and Roman galleys to the most modern motor boats; some had been under construction for a year. The night was spent at Belfast, a fine old town with quaint houses built by the early sea captains, many with cupolas where the owners might look out to sea to watch for the return of their trading ships. Maine is noted for its beautiful scenery, silver birches and countless covered bridges. We enjoyed stopping at old Taverns like Jed Prouty's at Buckport, built in 1798. Buckport is on the Penobscot River and from this neighborhood came the Murphy Family to Detroit, naming their two big buildings a Penobscot and Greater Penobscot from that old Indian name.

Bowdoin college at Brunswick, our next stopping place, was the home of Harriet Beecher Stowe. In an old barn back of the house in which she lived she wrote "Uncle Tom's Cabin." The building is now a museum of interesting articles on sale, made by the natives of Labrador under the direction of the Grenfell Missions. We crossed the tip of New Hampshire by way of Groton, Exeter and Manchester on our way to Longfellow's Wayside Inn at Sudbury. Mr. Ford has made a wonderfully interesting place of the old Inn. It has become so popular that as many as five thousand visit it on Sundays and holidays.

Homeward bound we stopped for a couple of days in New York, long enough to see Radio City and the Medical Center. The old Hotel Lafayette, a French hotel down in Greenwich Village, is worth a visit; its cafe is one of the best known in New York with its Parisian atmosphere. The new Washington bridge had just been opened so we crossed that way into Jersey over the Pocono Mountains just ahead of a storm.

A CASE OF BANTI'S DISEASE IN A FIFTEEN-YEAR-OLD GIRL*

OSBORNE ALLEN BRINES, M.D.†
DETROIT, MICHIGAN

M-4272 (20268), a fifteen year old school girl of Polish extraction, was admitted to Detroit Receiving Hospital on March 8, 1933, complaining of vomiting of blood, tarry stools and marked weakness.

Present Illness: The patient was perfectly well until March 5, 1933, when suddenly and for no apparent reason, she began to feel weak. The following morning she vomited some clotted blood, liver-like in color an consistency, and shortly afterward passed a tarry stool. She went to school but was sent home because of increasing weakness. At 5 o'clock that afternoon she had a second attaek of hematemesis and passed another tarry stool. She was put to bed on a milk diet but had a third hemorrhage on March 8, 1933, and was brought to the hospital.

Past History: During the spring and summer of 1932 the patient had had an intermittent pain under the left costal margin which resembled the rubbing of two bone ends against each other. This pain was not aggravated by deep breathing or coughing and disappeared six months prior to admission and did not return. Aside from this there was no history of abdominal pain prior to or during the present illness. The appetite had been good and bowels regular. There was no history of indigestion, heartburn, gas, nausea, vomiting, mucous membrane hemorrhage or jaundice prior to the present illness. Past history by systems negative.

Family History: A brother, now eighteen years old, was admitted to Harper Hospital in 1928 because of frequent epistaxes and pain in the left upper quadrant. An enlarged spleen was found. Deep x-ray therapy was given and the boy is now symptom-free and in good health. The family history is otherwise irrelevant.

Physical Examination revealed a well developed and nourished but very pallid girl apparently of stated age. The skin and mucous membranes were not icteric and on admission showed no evidence of hemorrhage. The pupils were equal, regular and reacted promptly to light and accommodation. The optie discs were pale, the retinal vessels were normal and there was no evidence of hemorrhage or exudate in the fundi. The nose, mouth and throat were negative. The lungs were clear. The apex impulse was felt in the fifth interspace, 9 cm. from the midsternal line. The heart was moderately enlarged to percussion, both to the left and right. The rate was rapid, ranging, for the most part, between 110 and 140. Auscultation revealed a gallop rhythm at the apex and a soft blowing systolic murmur over the whole precordium, loudest at the apex. A cardiological consultant described a faint but definite blowing diastolic murmur in the third left interspace, poorly transmitted downward. There was no friction rub. The carotid pulsations were prominent, the radials were Corrigan in type and there was a distinct capillary pulse. There was a loud systolic murmur over the femoral arteries, which faded out when a tourniquet was applied to the leg. The blood pressure was 160/0. The abdomen was flaccid and nontender throughout. The superfieial veins were not dilated. The tip of the spleen was palpable at the costal margin on deep inspiration. The liver was not felt. There were no other masses and there was no evidence of fluid. The extremities presented nothing unusual.

Laboratory Examination: Ten urine examinations showed specifie gravity 1.003; negative albumin and sugar. 1—30 white blood cells per high power field and occasional casts. There were 5 red blood cells per high power field in the admission specimen; none subsequently. On admission the hemoglobin was 4.2 grams per 100 c.c.; red blood cells 1.79 millions; color index 0.8. Despite liver and iron therapy and several blood transfusions, the red blood cells and hemoglobin did not rise above the admission figures. There was constant evidence of active regeneration with a reticulocyte peak at 45 per cent.

On March 9, 1933, the white blood cell count was 14,400 with 16 per cent non-filamentous neutrophiles; 24 per cent lymphocytes. On March 13, 1933, the white blod cell count had fallen to 4,000 and thereafter there was persistent leukopenia, reaching a low point of 700 on April 11. The total polymorphonuclear count ranged between 51 per cent and 94 per cent; the non-filamented forms 12 per eent and 34 per cent. Platelet count on March 16, 1933, was 155,000 per cubic millimeter; March 21, 107,000. Bleeding time 7 minutes. Clotting time 5 minutes. Clot retractibility began in one hour and was almost complete in two hours. Fragility test showed slight increased resistance to hemolysis. Kolmer and Kahn tests were negative. Icteric index 11. Vanden Bergh: Prompt, weak, direct reaction. Quantitative bilirubin: 0.8 milligrams per 100 c.c. of blood. Total non-protein nitrogen 37; dextrose 83; 5 blood cultures negative. Electro-cardiogram showed left ventricular preponderance. P.R. .13; QRS. 06; diaphasic T_2 and T_3 and one ventricular premature systole. Chest x-ray on March 14 showed the lungs to be clear. There was slight enlargement in region of conus pulmonis and left auricle.

Course in Hospital: The temperature ranged between 99° and 101.6° during the first 3 weeks, thereafter between 98° and 100° with terminal rise to 104°. The pulse ranged between 110 and 140 during the first 3 weeks; thereafter between 90 and 120 with terminal rise to 160. The blood pressure gradually approximated normal. 120/20 on March 16; 114/0 on March 21; 104/64 on April 12; 104/26 on April 20. During the last two weeks no diastolie murmur was heard; the systolic was less intense and the peripheral signs were less prominent. The day after admission the patient vomited up about 400 c.c. of dark, clotted blood. The stools were tarry for two to three days afterwards and gradually became free of blood. During the first week in the hospital there was a series of small subconjunetival hemorrhages without white centers. A second ophthalmoscopic examination on March 16, 1933, showed several recent superficial retinal exudates with associated flame shaped hemorrhages. These underwent partial absorption and fresh ones appeared during the remainder of her stay. No hemorrhages were at any time observed in the skin, mouth or nose. On March 14 the spleen was felt three finger

*Presented at Clinico-pathological Conference, Medical Section, 113th Annual Meeting, Michigan State Medical Society, Grand Rapids, Michigan, Sept. 14, 1933.

†Doctor Brines is Attending Pathologist at Receiving Hospital and the Jefferson Clinic Hospital, Consulting Pathologist at the William J. Seymour Hospital, Detroit, and Assistant Professor of Pathology at the Detroit College of Medicine and Surgery.

breadths below the costal margin and on March 22 four finger breadths down, following which there was no further detectable increase in size. The liver was at no time felt. On March 22 shifting dulness was first detected in the flanks. On March 27 the patient vomited about 20 c.c. of dark, clotted blood and on the next morning the stools were again tarry. During the following week the abdomen steadily increased in size and a definite fluid wave was obtained. The patient complained of no abdominal pain until the abdomen became tense. She had another gastric hemorrhage on April 19 and expired on April 22, 1933, forty-five days after admission.

The clinical discussion was presented by Dr. B. R. Corbus of Grand Rapids, Dr. W. H. Marshall of Flint, Dr. Frank Wilson of Ann Arbor, Dr. Wilbur E. Post of Chicago, and Drs. Alpheus Jennings, Fred Buesser, David I. Sugar and Richard M. McKean of Detroit.

RÉSUMÉ OF THE PATHOLOGICAL FINDINGS

Gross: Thoracic cavity: The lungs were normal. The heart weighed 250 grams. There was moderate cardiac dilatation but no valvular pathology.

Abdominal cavity: The abdomen contained 2.5 liters of ascitic fluid. The liver was coarsely hobnailed and weighed 900 grams. The spleen weighed 500 grams and was normal in contour. There was no evidence of thrombosis of the splenic vein.

Microscopical: Sections of spleen showed fibrous thickening of the capsule and trabeculæ. There was hyperplasia of pulp and corpuscle reticulum, the new tissue being of fibroblastic origin and leading to fibrosis. The corpuscles were preserved as far as shape was concerned but were largely replaced by fibrous tissue. The corpuscles were much farther apart than normal due to reticulum hyperplasia. There was proliferation of the venous sinuses but the sinuses were narrow and contained little blood. There was no pigmentation.

Liver: There was a histo-pathological picture of portal cirrhosis characterized by connective tissue hyperplasia about the lobules resulting in pseudotrabeculation which subdivided the liver into nodules composed usually of several lobules. However there was considerable diffuse connective tissue hyperplasia about the lobules resulting in pseudotrabeculation which subdivided the liver into nodules composed usually of several lobules. However, there was considerable diffuse connective tissue hyperplasia, some of which was intralobular, subdividing the lobules. Lymphocytic infiltration and proliferation of bile duct epithelium were conspicuous features.

Heart: The sections exhibited poor staining qualities of the muscle cells. There were a few small foci of mononucleated inflammatory cells.

Comment: The changes observed in the spleen coincide with a late intermediate stage of Banti's disease. However, in this case the spleen weighed only 500 grams, which does not approach the weight of the spleen in the usual case of Banti's. Unfortunately, in cirrhosis without Banti's syndrome a similar picture in the spleen is sometimes produced. Earlier in cirrhosis the splenic sinuses are widened but following prolonged engorgement, hyperplasia of the recticulum with compression of the sinuses results. The microscopical picture of the liver in this case coincides with our general ideas of chronic inflammation. The sections of heart probably do not present a picture of myocardial infection but rather one of severe myocardial degeneration, probably on a basis of anoxemia.

It is difficult to make a definite statement as to whether the pathology in this case was primarily splenic or hepatic. There is a steadily increasing attitude that Banti's disease and cirrhosis can have a common etiological basis. There is no reason why an asymptomatic cirrhosis could not exist for a considerable period after blood changes have been recognized. A natural question which arises is whether a splenectomy would have cured or benefited this patient. If so, the conclusion would probably have been reached that the splenic pathology was primary.

While there is no etiological proof, it would probably be quite safe to assume the pathology in this case was probably on an infectious basis, the liver and spleen being simultaneously damaged.

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, M.D., Dr.P.H., Commissioner
LANSING, MICHIGAN

ANOTHER TYPHOID CARRIER

A typhoid carrier who has an unusually interesting history has been recently discovered. The carrier is a woman who had typhoid in 1902, and since that time has been the cause among her relations either directly or indirectly of approximately 23 cases of typhoid fever. Only one or two of these have occurred at a time. The interesting and unusual part of the story is how two recent cases might have been prevented.

A carrier had been suspected among the group of related families for some time past. Many stool specimens have been sent in to the state laboratory. A positive specimen was obtained approximately two months before the last cases due to the carrier occurred. The carrier had not been interviewed or instructed in the meantime. It has been impossible for the State Department of Health to take care of all field calls and epidemiological work indicated. By the time other emergency calls were made and this case interviewed it was learned that two more cases of typhoid had resulted from infection by the carrier. These cases occurred among families of men employed at a milk condensery. Milk used by these

families had been part of the supply received by this condensery and milk from the farm on which the carrier is located was involved.

This story is related to show that discovery and prompt attention to isolation of carriers is important and that special instruction and requirements are necessary to prevent the possibility of contamination of milk or other food products.

Twenty-five carriers have been discovered in Michigan during the past year. It is impossible to say how many cases of typhoid fever have been prevented as a result of discovering these carriers. Not all of them would have produced cases but if they had averaged two apiece, the time of one epidemiologist devoted to this work would indeed be profitable.

Since our comment of last month regarding the Alma-St. Louis and Monroe outbreaks of typhoid fever there have occurred some three or four secondary cases in each locality. Thus, the cases in the outbreak at Monroe and vicinity will total approximately 45 cases. For the Alma-St. Louis outbreak the number is practically the same. Both outbreaks were milk-borne, the one being due to a carrier and the other to a case.

DIPHTHERIA

Earlier in the year we made a note of the fact that diphtheria was slightly higher in incidence during the summer months than it had been a year ago. During September the incidence dropped to approximately the same as that for September, 1932, but in October there has again been a slight increase over the same month a year ago. Thus, there continues to be some evidence pointing to a higher diphtheria season. There have been a number of fatal adult cases.

C. D. B.

CHILD HYGIENE NOTES

Dr. Ida Alexander completed a series of six weeks lectures on prenatal, infant, and child care in Calhoun County October 27. She will be located in Wayne County for the succeeding six weeks. The average weekly attendance at the Calhoun County classes was 498.

Dr. G. B. Corneliuson has been conducting similar classes in Menominee County which will terminate November 3. The average attendance at the Menominee classes has been 500.

Child care classes are being conducted in schools in the following counties: Manistee, Clare, Midland and Luce.

Miss Julia Clock has been conducting a prenatal and infant welfare program in Huron County since September 11.

Miss Esther Nash has organized a series of diphtheria immunization clinics in Manistee and the protective treatments are now being given by the local physicians. The work is being financed through local funds.

STUDIES ON COMMERCIAL BACTERIOPHAGE PRODUCTS

Margaret E. Straub and Martha Applebaum, New York, tested the bacteriophage products of three well known pharmaceutic companies manufacturing bacteriophage and offering it to the medical profession. They used plain nutrient broth of *p*H throughout. To sterile tubes of this broth they added 0.5 c.c. of the filtrate to be tested and 0.1 c.c. of a broth bacterial suspension from twenty-four hour growth on agar slants. Suitable controls without bacteriophage were included. Incubation was at 32 C. with readings taken at intervals recorded in the tables. Filtrations were made at four hours for the staphylococcus and the colon bacillus, and at six hours for the streptococcus. From their tests they found that one company markets a bacteriophage preparation containing a preservative, which does not belong in a bacteriophage. Its preparation for staphylococcus contained a weak bacteriophage. In the streptococcus filtrates for clinical trial as well as in the streptococcus and colon bacillus products offered for sale, the presence of bacteriophage could not be detected by them. The second company's staphylococcus bacteriophage contains no preservative. A first sample revealed a weak bacteriophage but a later batch contained a potent staphylococcus bacteriophage. The third company's staphylococcus bacteriophage has no preservative and is potent, but its staphylocolon mixture is only a poor colon bacteriophage.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

F. A. BAKER, M.D., Acting Chairman.....Pontiac
A. S. BRUNK, M.D.....Detroit

Editor
J. H. DEMPSTER, B.A., M.D.
5761 Stanton Avenue, Detroit, Michigan

Business Manager and Editor County Society Activities
FREDERICK C. WARNSHUIS, M.D., D.Sc.
2642 University Avenue, St. Paul, Minnesota, and
Grand Rapids, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M.D., 5761 Stanton Avenue, Detroit, Michigan.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M.D., 2642 University Avenue, St. Paul, Minnesota, or Suite 1514 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

NOTICE TO CONTRIBUTORS

Owing to the limitation of space, preference will be given brief articles.

Manuscripts should be typewritten, double spaced, on one side of white paper 8½x11 inches. There should be a margin of 1½ inches on the left side of page.

All photographs should be clearly focused prints on glossy paper (do *not* send negatives). The standard 8x10 or 5x7 size prints are recommended.

All line drawings (charts, diagrams and sketches) are to be drawn with India ink on stiff white paper or Bristol board. Drawings are to be made with pen lines of suitable thickness to allow reduction to the width of one or two columns, as the case may be, of the Journal. Do *not* send drawings in colored ink.

Illustrations will not be accepted unless they reach a certain standard of excellence technically and present an attractive appearance. Illustrations, both photographs and drawings, are to be separate from the text. These each should be labeled on the back with the Figure number, legend, title of paper and the author's name.

Reprints of papers published will be furnished authors at cost if the order is placed at the time the galley proofs are returned to the editor. ***The cost of illustrations is to be defrayed by the author of the paper whether reprints are ordered or not.***

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

EDITORIAL . . .

DECEMBER, 1933

THE AFFLICTED CHILD LAW

This statute, which is different from and should not be confused with the Crippled Child Act, was enacted in 1913 and amended by the recent legislature so as to permit payment for hospitalization together with medical and surgical treatment of patients in the county in which the parents and the afflicted child live. Only hospitalized indigent cases are included, to be taken care of by members of the hospital staff, who, together with the hospital, are to be paid out of public funds. We feel that, in justice to all members of the medical profession, all should be included whether members of hospital staffs or not, *nullo discrimine* because all qualified doctors are taxpayers and by right entitled to equal opportunity to practice their professional duties.

However, the law stands. In one county of the state the Board of Auditors, it is said, have refused to approve a reasonable schedule of fees submitted by the County Medical Society. They will authorize payment for hospitalization, we are told, but will not reimburse the physician who has the care and responsibility of the case. We do not purpose arguing the matter. The law as amended is quite specific and sufficient to apply to the situation. It is said also that hospitals intend to ask their staffs to render free service to these patients for whose medical and surgical care the amended Afflicted Child Law allows payment. There may be some misunderstanding or misinterpretation of the alleged attitude of the hospital, since it is inconceivable that any institution would make such a request of the medical profession, who are already such a large factor in the charity work accredited such organizations. Our regard for the fairmindedness of the few hospital managers we know personally would preclude a belief that they would abet a movement that would be inimical to the interests of the profession. It is the duty of both hospital and attending physician to insist upon the operation of the amendment as it stands.

We have insisted time and time again that the care of the indigent sick should be a community duty and not the duty of any segregated group. Some municipalities seem to have funds for public works and

various so-called civic improvements, but not a cent to recompense the medical profession for services that the traditional ethics of the profession impels its members to perform.

The doctor is a citizen who at great expense and effort has qualified himself to render service to the sick and afflicted. He must himself live and give his family advantages in the way of education commensurate with his station in life, which he cannot do with the numerous inroads that have been made into his field of practice. He is the last person to ask for special favors of any description. He asks only equity and justice.

1933 REFLECTIONS

Perhaps no other year of our lives has been so momentous as this, which has witnessed the collapse of our banking system and has left so many almost if not entirely stranded. It would seem the culmination of a movement that had its beginning early in the century only to be interrupted by the great war and the inflated prosperity which was its aftermath. The financial collapse has meant curtailment in buying power and consequent unemployment on such a scale as has never before been known in this country. We have come to a realization that we need not look for any sudden return of the prosperity of a few years ago. There is an old saying to the effect that if you can't get what you want, want what you have. That will be the lot of perhaps the majority of us. It is clear that we will not be able to indulge in the luxuries of four years ago, but that in itself does not necessarily mean hardship, any more than "going on a diet" means starvation. Plain living so long as it is accompanied by high thinking is not a bad thing after all.

Along with citizens in other callings the medical profession are victims of an unpleasant overhead, the result of high and universal taxation to make up for the follies of governmental extravagance during the so-called fat years; and this means personal retrenchment to make up for unwise and unwarranted corporate expansion.

Mankind has been hard hit, but there is no place for despair. The wise person will look upon it as an interesting social experiment, confident in his inherent ability to put himself in accord with the destiny that shapes his ends. Long ago a Greek poet wrote, "Many are the wonders of the world, and none so wonderful as man. . . . All fertile in resource, resourceless never meets he the morrow; only death wants he the skill to shun; many a fell disease the healer's art hath foiled, so soaring far past hope, the wide inventiveness of man finds diverse issues good and ill."

PREVENTION OF TUBERCULOSIS IN ADULTS

Many factors point to this being an opportune time for the initiation of a tuberculosis prevention program in adults. The often repeated threat of dire calamity, as a result of continued depression forces on large numbers of unemployed, has thus far not materialized, but it would be unwise to take the matter too lightly. Accumulative effects of mental strain on all economic classes, added to continued lack of material requirements in the working classes particularly, must sooner or later result in lowered body resistance. Though recent years have shown that the partial immunity in some infected adults can withstand almost unlimited factors of aggravation, we have evidence daily that there is but a narrow safety zone in a large proportion of the population. It is a well recognized fact that tuberculosis is more prevalent in some races than in others and particularly in heavily populated areas. The large industrial sections, such as we have in Michigan, thus require concentrated action at this time. Fortunately in most of these communities the counties have become active in the many modern measures for combating tuberculosis. This is particularly true in Wayne County, where immediate beds are not available for all requiring hospitalization. However, active prevention work among the apparently healthy adults would result in the rounding out of a complete tuberculosis program. Case finding in children has shown that active disease often exists, particularly in its earliest stage, without giving symptoms and frequently too without apparent signs on physical examination. It was felt for some time that tuberculin testing of adults would be superfluous and that blanket x-rays should be taken of all. This view was the result of reported findings in one of our

country's largest cities. Recently, however, it has been found that percentages of infected adults, as shown by tuberculin reaction, vary greatly. Taking large industrial cities as an example, positive reactors will vary between 50 and 80 per cent according to the section investigated, while small cities and rural areas will often run much lower than 50 per cent. It is advisable, therefore, to educate all adults to the case-finding program of tuberculin testing followed by x-raying of the reactors. Tuberculous patients thus discovered will run as high as 1 per cent and even higher in some thickly populated sections. Thus another and perhaps last remaining large factor will be eliminated—namely, the continuous though innocent spreading of tuberculosis to fellow workers, friends and relatives by people who have no symptoms and therefore are not aware of being diseased. A positive skin test would be a favorable psychological factor to a great number of people who would otherwise put off, to "some day soon," the doctor's advice to have a chest x-ray. The tuberculosis testing of apparently healthy adults should be carried out by the family physician and the reactors referred to radiologists.

D. S. B.

THE DOCTOR'S AUTOMOBILE

To no other profession or occupation does the automobile mean more than to members of the medical profession. The efforts of the Automobile Club of Michigan in the matter of tax reduction are welcomed by every one. The Michigan Motor News lists the following imposts on the automobile: State gas tax, Federal gas tax, license plate fees, Federal excise tax, Federal tax on oil, Federal tax on accessories, Federal tax on parts, Federal tax on tires and tubes, State sales tax—nine in all. As the economic depression makes taxation more burdensome, an increase of 20 per cent in 1932 is noted over the amount of 1929 before the effects of the depression were felt. It is high time that a movement should be started in the opposite direction. The Automobile Club endeavors to secure a thirty-three and one-third per cent reduction in registration or license plate fees and a scaling down of the gasoline tax from three to two cents a gallon.

Excessive taxation has resulted in putting a quarter of a million motor vehicles off the street as compared with 1929. According to the secretary of state on October 1 there were 269,326 fewer cars, of all types, registered than on the same date in 1929. The number of licensed vehicles was 67,087 less than October 1, 1932. This year, says the secretary of state, 415,496 owners took advantage of the law permitting them to buy half-year license plates, good until August 1. Only 343,140 were able to pay for the remainder of the year. Revenue has dropped in proportion to the diminishing number of cars. License plate sales for the first ten months of this year were $17,359,262—down $1,232,000 from the same period last year and more than $4,000,000 below receipts in the same ten months in 1929.

The prudent driver has always carried insurance for personal liability and property damage. This of itself amounts to about twice as much as the annual license, but it is probably worth it in peace of mind. The new law making automobile owners liable for accidents will demand that such insurance be almost universal. The only persons who can afford to be not insured are the few wealthy ones.

Any economy, therefore, that may be procured for the owners of automobiles by reduced costs of operation will be most acceptable.

TECHNOCRACY

A year ago this high sounding word was very much in the public press and a great deal of heat with a minimum amount of light was generated by the somewhat arrogant attitude of a certain group of engineers who were dubbed technocrats. The lay magazines of November, December and January found articles on the subject "good copy." Then the word passed out and nothing has been heard of it since. According to its etymology, technocracy means domination by the machine and who will deny that machine domination is not as much in evidence today as it ever was. That person would be rash indeed who attributed the present economic depression to a single cause. There are a great many causes but after all would not the chief cause of unemployment seem to be the fact that machines

in almost every line of industry have displaced man power? It is needless to recall instances which must occur to any one who gives the subject any thought. To cite only one example, "the three automobiles" which figure so largely in magazine advertising are all today infinitely superior to the same product put out by the three respective companies five years ago. What does it mean? Simply that if an automobile today gives better service and lasts twice as long as the product of five years ago, that one factor would displace 50 per cent of the men engaged in its manufacture at the beginning of this period. But this is not all. The automobile today is produced at a lower cost to both producer and consumer, which means lower wages and frequently the inability to buy on the part of the would-be consumer. Multiply this situation so as to include all manufacturers and we have probably the most potent cause of unemployment. This being the case what direction must the problem of readjustment take? We hate to say that a lower standard of living is the only way out. One thing certain is that if more people are to be employed, it will mean shorter working hours and therefore greater leisure. If the time off the job can be spent profitably to the worker (not necessarily in financial gain) the matter of social and industrial adjustment will be accomplished.

GYNECOLOGY INFORMATION

Hot Flashes

Mrs. S. E. G. writes: I am 52 years old next birthday. What causes me to have hot flashes every once in a while? My hands feel numb and have pain in them, and seem to swell from the elbows down.

Reply—Change of life. Take ovarian extract. Send stamped, addressed envelope for our booklet on the subject.

The above bit of information was culled from the "How to Keep Well" column of Dr. W. A. Evans, syndicated in the daily newspapers. We don't like to be nasty or to cast any aspersions. We are reminded, however, of a conversation between two Hibernian tailors in regard to their ability to make a perfect fit. One boasted he could make a suit of clothes for a man if he saw him going around a corner. The second went him one better; he could make a suit of clothes for a man if he saw only the corner which the fellow went around.

MEDICINE, HOW IS IT PRONOUNCED?

John O'London's Weekly, which is a welcome and regular visitor to our office, contains the following comment on Vizetelly's (Funk & Wagnalls) new book, "How to Speak English Effectively." The reference is to the pronounciation of the word *medicine*. "Educated people," says a writer in the *Weekly*, "differ about particular words. I would not have you follow Dr. Vizetelly blindly, for if you do I shall be put to the pain of hearing you pronounce 'medicine' in three syllables. I have pronounced it in two all my life with the approval (though I only now learn it) of Dr. Johnson. Mr. Fowler (Modern English Usage) is of the same persuasion; each pronunciation being as old as the fourteenth century. *Medsin* is heard most often in England, *med-i-sin* in Scotland, and the United States. Both are found in verse of all periods, but the first was Shakespeare's choice as is proved by the metre of that fine passage in 'Othello' ":

"Not poppy nor mandragora,
Nor all the drowsy syrups of the world,
Shall ever medicine thee to that sweet sleep
Which thou ow'dst yesterday."

SOME BOOK INSCRIPTIONS

(From *John o' London's Weekly*)

"An I it lose and you it find
I pray you heartily to be so kind
That you will take a little pain
To see my book brought home again."

To the Gentle Readers of My Books

"If you take me as a loan,
Use me as you would your own,
Treat me gently as a lover,
Mind my leaves and back and cover.
As it pleases you, skim or learn me,
But when done with, pray return me."

Another inscription runs:

"The borrower of this book is under two obligations . . . The first is: to read it without delay . . . The second: to return immediately it is read."

"Go little book and greet my friend.
Brighten his house, and cheerful solace lend,
Then when he lays thee down at last
And 'Finis' reads with thanks for all the past;
Whisper to him, that this is not your home,
And though your owner grants you leave to roam,
Still now the hour has struck when like the tide,
You make for home, and there once more abide."

"Si quisquis furetur
This little libellum,
Per Phœbum, per Jovem,
I'll kill him, I'll fell him!
In ventrum illius
I'll stick my scalpellum;
I'll teach him to steal
My little libellum."

AFTER THE TONSILS

Th' nurse at scuill hae writ a note
Tae ma an' pa, that ah may quote,
Telt them, there wasna ony doot,
Ah'd hae tae hae ma tonsil's oot.

Bit ah ken weel th' nurse at scuill,
Kens naethin' 'boot th' gowden rule,
Or she wid kindly let me scoot,
An' no advise ma tonsil's oot.

She comes tae scuill an' wi' a rule,
She'll push oor tongue an' act a fool.
Confoon' her soul ah'll no stand oop,
An' let them tak ma tonsil's oot.

Ye ken its fun hoo people feel,
Aboot this here auld tonsil deal,
What business hae a nurse tae root,
Or tell's tae hae oor tonsil's oot.

Bit faither isna verra sure,
Tae hae it done, or for tae cure
Ma swearin' habit wi' a boot,
Or for tae hae ma tonsil's oot.

Bit ah ken weel a Doctor auld,
That ah wull trust until ah'm bauld,
If he says that ma throat's atoot,
Ah'll hae him tak ma tonsil's oot.

It's fashion noo tae operate
On tonsil's, twice, at ony rate.
Bit mither fears she micht get stoot,
If she wid hae her tonsil's oot.
Bit gee, let me gi' ye a tip,
If ye in politics wid sip,
An' need yer loud auld horn tae toot,
Ye'll hae tae hae yer tonsil's oot.

Ah weel. Guid nicht.
WEELUM.

HISTORICAL

THE MICROSCOPE*

No instrument has been more serviceable in medical research and practice than the compound microscope. It consists essentially of two lenses, or combination of lenses, known as the objective and the ocular, the latter serving to magnify the image produced by the former. Although a few principles of lens combinations were known from the time of Roger Bacon in the thirteenth century it was not until the sixteenth century that the microscope as such was developed. The name "microscope" was suggested to designate the instrument in 1625 by Giovanni Faber. Previous to that time, and even as late as 1650, the instrument was referred to as a "smicroscope" or an "engyscope."

In 1590, Zacharias Jansen, a Dutch optician, combined a convex objective with a concave ocular lens to form an instrument which, by varying the distance between the lenses, could serve as either a telescope or a microscope. The low magnifying power (seldom exceeding ten times) naturally limited the use of such instruments as microscopes, though some attention was directed to them as military and astronomical telescopes. The early microscopes were considered little more than novel toys for idle enjoyment, and were even referred to as "flea-glasses" since these insects were common subjects.

When the Dutch telescope came to the attention of the astronomer and optician, Joannes Kepler, he saw the possibility of increasing the magnification through the substitution of a convex lens for the concave ocular. Although Kepler suggested this idea in 1611, he apparently did not execute it; in 1613, however, Christophorus Scheiner actually constructed and demonstrated an instrument of this type. By 1660, the compound microscope had become an instrument of recognized scientific value, although limited by numerous deficiencies. Definite attempts were made, therefore, to render the instrument less clumsy and more compact, and to improve the illumination and the shape of the lenses. Outstanding in the improvement of the microscope during this period were Divini, Campani, Robert Hooke and Helvelius. One of the outstanding contributions to the improvement of the microscope at the close of the seventeenth century was the work of Christian Huygens on the ocular. Huygens added an extra "field glass" to the ocular, and evolved a type of lens which bears his name and to the present is the most popular type.

The tendency of the early compound microscope was to split light into its component colors, causing haloes or fringes of rainbow hue; consequently, the more serious microscopic work of such men as Leeuwenhoek, Malpighi and Lieberkuhn was done with the aid of single lenses, some of which were capable of a magnification of nearly two hundred diameters.

During the first half of the eighteenth century, the work on the microscope was directed principally toward improving the

*This is the second of a series of editorials on the methods and devices which have aided in the evolution of medical science. The third, which will appear in the January number, will deal with staining methods, a subject related to microscopy.

mechanical features of the instrument; such parts as the flexible stand, draw tube, mirror, nose-piece, fine and coarse adjustments and condenser were developed at least in principle. It was not until the Swiss mathematician, Leonhard Euler, applied himself to calculations on the correction of color aberration that the microscope was to any extent further improved. In 1747, Euler suggested the construction of achromatic object glasses, but, like Kepler, he did not himself carry his suggestion to a practical conclusion. Ten years later, John Dollond, an English optician, concluded experiments on both spherical and chromatic correction. Combinations of lenses of flint and crown glass were adapted to telescopes, but this principle was not applied to microscopy for some decades. Following the work of Dollond, there was again a period during which the microscope was improved principally along mechanical lines.

During the third decade of the nineteenth century, experiments with the achromatic lens were advanced in France by Selligues. These were followed up by Frauenhofer in Munich, Amici in Modena, Chevalier in Paris, and Goring and Tulley in London. To Selligues is given the credit for making the first plan of an object glass composed of achromatic compound lenses. In 1824, Chevalier constructed a microscope on this plan and presented it to its inventor. In 1829, Joseph Lister† stated that the resolution and depth of focus were dependent on the angle of aperture, the greater the diameter of the objective lens in relation to its focus, the greater the resolving power and the less the depth of focus. Attention to this principle led opticians to invent lenses of higher resolving power and magnification.

The desire for increased magnification and resolution during the later nineteenth century followed two lines. First, the use of gem materials in view of their greater refractive qualities was studied and resulted in the optical use of fluorite by Charles L. Spencer, and the use of this material by Ernst Abbe in the formation of apochromatic objective equipment. The fine color correction of the modern research microscope is due to this invention. The second line of study led to the immersion of the objectives in fluids of varying refractive indexes with the discovery by Robert Tolles of the oil immersion lens in 1874. Further improvements at this time concerned the achromatic condenser, parfocal oculars and objectives and the modern clear vision type of binocular body tube.

During the past fifty years, no essential change has been made in the optical properties of the bright field microscope, though many mechanical features have been perfected. Further magnifications by the microscope have been possible only through the establishment of new principles, such as those found in the dark field microscope, the ultra microscope and the ultra violet microscope. Whether the limits of visibility finally have been reached, only the future can tell.

W. T. D.

†Joseph Lister was the father of Lord Lister of antiseptic surgery fame.

CORRESPONDENCE

CONGRATULATIONS

Stanford University, California
November 3, 1933.

Dear Doctor Warnshuis:

Thank you very much for your letter of October 28, and for your generosity and kindness in sending me that copy of your Michigan Survey of Medical Services and Health Agencies. I have it before me now and am going to go into it carefully at my earliest opportunity. I will write you later on, after I have read it. I am glad that you have put through such a substantial study.

Hearty congratulations.

Faithfully yours,
Ray Lyman Wilbur

MENTAL HEALTH

Chicago, Illinois,
November 2, 1933.

Dr. F. C. Warnshuis, Sec'y,
Michigan State Medical Society,
Grand Rapids, Michigan.

Dear Doctor Warnshuis:

At the 1933 meeting of the American Medical Association in Milwaukee, a report was received from a special Committee on Mental Health which had been appointed in 1930. This report is found on pages 33-47 of the Proceedings of the House of Delegates of the Eighty-Fourth Annual Session.

On pages 56 and 57 of the 1933 minutes of the House of Delegates there appears the action of the reference committee on medical education which, briefly, is to the effect that the reference committee concurs in the summary projected by the Committee on Mental Health but does not deem it wise to establish a bureau or committee on mental health, holding that the work suggested by the Committee on Mental Health can be carried on under the supervision of the Board of Trustees through the following channels:

1. "Psychiatry in relation to medical education and hospitals" through the Council on Medical Education and Hospitals;
2. "Public policies and procedures in mental health

administration" through the Bureau of Legal Medicine and Legislation;
3. "Research in mental health"; and
4. "Dissemination of information" through the Bureau of Health and Public Instruction.

The final recommendation of the Committee on Mental Health is that the constituent state medical associations and component county medical societies of the Association be advised each to establish a standing committee on mental health.

This letter is to call your attention to the enclosed report of the Committee on Mental Health and to suggest that its recommendations be transmitted to constituent society officers, either through the state medical journal or other channels.

If the Bureau of Health and Public Instruction can be of any assistance in this matter, we shall be happy to hear from you. Perhaps we can assist you in communicating with county societies.

W. W. Bauer, M.D., Director
Bureau of Health and Public Instruction
American Medical Association.

SOCIETY ACTIVITY

SEASON'S GREETINGS

"To give what none can measure, none can weigh.
Simply to go where Duty points the way.
Faith, Honor, Duty—Duty calmly done,
Which shouts no self praise o'er a victory won;
One bugle note our battle call,
One single watchword, Duty—that is all."

December, Winter, Christmas, New Year—the ending of a year filled with much of care and woe—so little of real joy and withal a year of strange experiences. A year wherein as never before the profession perceived and discharged its Duty, unfalteringly. Humanity's call was answered. Nor did we pause first to demand our stipend as did the unions, the trades, the financiers, the merchant, the farmer and the craftsman. Neither did we await the making of a code—ours, existent through centuries, surrounded with honorable traditions, was at hand and applicable to the present day, hour and emergency. Duty—perceived and accepted. Duty well done.

In that perspective this ending year may be appraised as having instilled in all of us some things that were ennobling and invaluable. Something that created a finer quality in our hearts that will cause succeeding years to yield lasting dividends.

With that degree of contentment shall we not enter upon the approaching holiday season and derive from it full measures of happiness and joy, thereby acquiring a vision and mental attitude that dispels gloom, begets courage, fosters happiness and inspires determination to carry on to greater and nobler heights?

In that spirit do we extend to our members, readers, patrons and sister state organizations our heartiest greetings and wishes for a holiday season of merriness and happiness.

FEDERAL AND STATE EMERGENCY WELFARE RELIEF

The following statements and activities are imparted for our members information.

In September the State Commission and many of the county commissions were appointed.

On September 22 Federal Bulletin No. 7 was available.

On October 4 the Executive Committee prepared a statement and sent it to the State Commission. See minutes of the Executive Committee published in the November Journal. On that same date the Executive Committee was designated to serve as a Medical Advisory Committee to the State Commission.

On October 26 a conference was held in Lansing with the State Commission. At this time the profession was requested to submit a fee schedule and recommendations.

On November 2 the Executive Committee formulated and approved a fee schedule and recommendations to be sent to the State Commission. A copy was sent to each county society on November 7.

On November 8 there was a conference of county directors in Lansing. Directly afterwards we received from indirect sources a proposed fee schedule formulated by the Commission. This schedule was so palpably unreasonable and unfair that a "Caution Bulletin" was sent to each county society advising that no agreements be made under the schedule prepared by the Commission.

The following letter was sent to the State Commission:

November 13, 1933

Mr. Fred R. Johnson
State Relief Administrator
609 City National Building
Lansing, Michigan

Dear Mr. Johnson:

Thank you for your letter of the 10th, enclosing copy of your "Temporary Arrangement, perfected by your Commission."

I have been in receipt of numerous telegrams and letters from our County Societies imparting that it is being represented to them that the fees you set

forth are based upon an agreement reached with the State Medical Society. This is, of course, not true and each County Society in the state has been so informed and advised not to enter into any agreement based upon the fees or statements imparted in the Commission's "Temporary Arrangement."

Permit me to remind you and the Commission that there are principles involved that are related not only to this emergency but extend on into the future. We are concerned over precedents that may have a detrimental influence upon public health and welfare.

Permit me also to remind you that a doctor cannot afford to render services for the fees indicated. His business overhead cost, which has been carefully computed, will cause a doctor to sustain financial loss should he render services at the indicated fee.

To arrive at an equitable arrangement and to formulate just regulations, after considering all of the impinging factors, I am respectfully requesting that you arange an early conference to consider this problem.

I desire to assure you again of our every willingness to coöperate and subscribe helpful assistance. The profession is willing to record support but it cannot be expected to do so under unreasonable conditions or terms.

Kindly accord this request prompt consideration and please arrange for its early solution in order that a program of medical care may be agreed upon.

With expressions of regard, I am,

Sincerely,

F. C. WARNSHUIS,
Secretary.

On November 10 the following resolution was received:

WHEREAS, The Michigan State Medical Society, representing over thirty-five hundred (3,500) physicians and surgeons, M.D., of Michigan, has made the Federal-State Emergency Relief Administration an offer to supply medical and surgical care in home and office to unemployed persons on welfare rolls, at a fee schedule which represents a forty per cent (40 per cent) discount off minimum rates; and

WHEREAS, national surveys have shown that the cost of operating a medical practice averages from 48 per cent to 49 per cent of gross income; and

WHEREAS, the group judgment of Michigan's physicians is most important in arriving at the emergency fee schedule which will insure maintenance of the present high standards of medical care and public health in this State; and

WHEREAS, the eminently fair and reasonable discount of forty per cent (40 per cent) of minimum fees is offered by members of the Michigan State Medical Society as their contribution to the unemployed during the period of this national emergency; therefore be it

RESOLVED, That the Public Health Committee of the Detroit Board of Commerce indorse, sanction and approve the emergency fee schedule submitted by the Michigan State Medical Society for home medical care under the Federal-State Administration; and be it further

RESOLVED, That the medical profession of Michigan be congratulated and thanked for its generous and continuous service to the unemployed of this state.

The motion was put to a vote, and carried unanimously.

Information was sent for and secured from many states and localities in order that Michigan might ascertain national actions.

At this writing, November 14, the foregoing summarizes the representations recorded by your State Society. A sustained effort will continue to be evidenced to conserve the interests of the members and to secure fair recognition. Progress reports will be sent to county society officers for guidance.

On November 21, in response to request made, the State Commission granted a second conference. After a three-hour conference the following regulations were concurred in. They supplant the temporary regulations issued by the Commission the previous week.

STATE EMERGENCY WELFARE COMMISSION OF MICHIGAN

To County Emergency Welfare Relief Commissions:

In conformity with instructions from the Federal Emergency Relief Administration to the State Commission contained in Bulletin No. 7, "to augment and render more adequate facilities existing" for medical, dental and nursing care, the State Commission hereby establishes the following rules:

I

Wherever a county, a municipality or a township employs full time or part time physicians, dentists, or nurses, to give aid to the sick poor, they need not be displaced, but may proceed as heretofore in the discharge of their duties under the discretion of the County Emergency Welfare Relief Commission.

If the cost is borne by local funds (not by state or federal funds) it is not to be assumed by the County Emergency Welfare Relief Commission, but is to be continued as heretofore.

II

Wherever medical or dental service is rendered through a contract with a local medical or dental society, which provides that the society itself is to be paid a stipulated sum of money in return for services given by members of the society when called, and the contract is with a local relief administration, but not with the County Emergency Welfare Relief Commission, and where the compensation to the society is from local funds (not state or federal funds), the arrangement need not be disturbed.

If, however, the compensation for such a contract has been coming from state or federal funds, the arrangement is to be discontinued, and replaced with an agreement to compensate directly the medical man or dentist who performs the service, as outlined in Section V.

III

Wherever an arrangement has been made with a local medical, dental, or nursing society for services of all members of the society, or of some members, pay for each authorized call at the home or office is to be at established fees and is to be made directly to the attending practitioner, the arrangement to be continued with the alterations set forth in Sections V and VI.

IV

Federal rules authorize a "continuance in the use of hospitals, clinics, and medical, dental and nursing services already established in the community and paid for, in whole or in part, from local and/or state funds in accordance with local statutes or charter provisions. Federal Emergency Relief Funds shall not be used in lieu of local and/or state funds to pay for these established services."

Neither may Michigan State Emergency Relief Funds be so used.

V

Wherever no medical or dental care has been supplied hitherto; or wherever it is really necessary to "augment and render more adequate facilities existing" the following plan is to be established:

An arrangement for service is to be made with all the physicians and dentists in the county, municipality, or township, to give service at fees that are not to exceed those attached hereto; or, if all physicians and dentists will not agree to serve, then with that number who will agree. The essentials of the arrangement are to be as follows:

A. *Choice of Physician or Dentist*

(1) The traditional family-physician and family-dentist relationships are to be

maintained. This relationship permits the family to choose its own physician or dentist. Choice of physician or dentist includes the right to change physicians or dentists.

(2) In order that the work may be divided with reasonable equity, and good service secured, the number of families permitted to choose one physician or dentist should be limited. The case load and the number of practitioners available will determine this to an extent. It is suggested that the maximum number of families allowed to choose one physician or dentist should be one hundred, except in those cases where a physician employs one or more medical assistants, or a dentist one or more dentists. Then the suggested limit is two hundred families.

(3) In those cases where a family fails to make a choice of physicians or dentists the family shall be allocated according to some local plan to a physician or dentist agreeing to this arrangement.

(4) Whether or not it is desirable to zone a county because of different population centers, and because of transportation problems, is left to each county commission, to determine. It is suggested that in an urban area where there has not been a natural division of practicing territory that zones shall not be created.

(5) A rule of reason should prevail in tolerating the choice of physician or dentist by a family, such choice to be limited of course to practitioners within a reasonable distance of the patient's home.

B. *Authorization and Records:*

(1) *Authorization:* Medical and dental services, according to the above, and nursing service according to a later section of these rules, are to be ordered in each case only by local relief administrators according to some local plan. In order to be expeditious when necessary, it is suggested that deputies, case workers or investigators be given reasonable latitude in ordering such relief.
Particular care should be taken for promptitude in emergencies, and for night calls.

(2) *Records:* Pending the issuance of uniform state record forms it is suggested that very simple written authorization records be used. These need carry only the date, the name and address of the family, the authority to give service, the name of the practitioner, the signature of the authorized officer, and a blank space for the physician's or dentist's bill. These may be in triplicate, one to be kept in the files, and two to be given the patient to present to the practitioner. He will return one of these two to the relief administration as his bill, and retain the other for his records.

(3) *Prescriptions:* It is suggested that each cooperating physician be instructed to write prescriptions at least in duplicate, sending one to the pharmacist with the patient, and mailing one to the relief administration, both of which will clearly indicate the patient's name and date.

(4) *Coöperation with Local Medical and Dental Societies:* In order to expedite the program it is suggested that each county Emergency Welfare Commission shall find itself greatly assisted by inviting the local Medical and Dental Societies to act in an advisory capacity either as a committee of the whole or through a special committee. Such a body can help in guaranteeing adequate service. It can assist in handling complaints of inadequate service. Relief workers, being incompetent to pass upon complaints involving the medical or dental technics or sciences, should refer all complaints of this nature to such a committee.

VI

Wherever the plan of using private physicians and dentists prevails, or wherever it shall be established in the future, the following schedule of fees shall be the maximum amount paid:

A. *Physicians' Fees*

(1) House Calls, 7 A.M. to 8 P.M.....$ 1.50
Within 3 miles from office

(2) House Calls—8 P.M. to 7 A.M..... 2.50
Within 3 miles from residence

(3) Milcage beyond 3 miles (Per mile) .25

(4) Confinements in Home (Plus mileage) 15.00
Beyond 3 miles
Services of a nurse to be furnished by County Commission

(5) Office Visits ..... .75

(6) *Other Medical and Surgical Services:* These items shall be subject to adjustments and agreements as to fees formulated by County Emergency Relief Commission and the County Medical Society or its representatives in each county

VII

Wherever no nursing service has been supplied hitherto, or wherever it is really necessary "to augment and render more adequate facilities existing" for nursing relief clients, the following plan is to be used:

A. (1) If a visiting nurse association exists in the area, an arrangement is to be made with the association to supply hourly bedside nursing on a per visit basis, the work to be supervised by the association.

(2) The maximum fee to be allowed is ninety cents (.90) per visit plus five cents (.05) per mile for rural nursing.
For the occasional delivery case which lasts more than four hours, a maximum of two dollars ($2.00) is allowable.

(3) Where no visiting nurse association exists, Miss Olive Sewell, R.N., Secretary, Michigan State Nurses' Association, Room 206 Capitol Savings & Loan Association Building, Lansing, will supply, upon request, a list of registered nurses in the area qualified to render proper service. Arrangements are to be made with these nurses to attend cases upon call on an hourly basis, not to exceed the above rates.

(4) In those rare cases where continuous (not hourly) nursing is necessary, registered nurses may be engaged, the maximum fee allowed to be four dollars ($4.00) for twelve hours' service, and five dollars ($5.00) for twenty hours' service.

(5) Requisitions for nursing service will normally come through the attending physician. Actual authorization should be made by the relief administration.

(6) In many counties where visiting nurse organizations do not exist, there are county nurses employed by the counties, or the Michigan State Department of Health, or the Kellogg Foundation, or the Children's Fund of Michigan. These nurses have all agreed with the State Nurses' Association to assist in supervisory or consultation capacities, if the county Emergency Relief Administration wishes to use them.
There are a few counties where no such nurses exist. The State Nurses' Association, upon request, will furnish to the administrators in such counties, the names of nursing supervisors of local hospitals, who have agreed to act as supervisors or consultants if wanted.

(7) The State Nurses' Association will supply gratis, if asked, the forms which a nurse should use at her bedside duties. These forms properly filled out by the nurse should eventually be returned to the Association.

Comment:

Your representatives, heeding the many factors related to the problem and conversant with the exceptional situation that exists in Michigan, are of the opinion that these new regulations are equitable. The principle of patient-physician has been ac-

cepted. Joint coöperation between County Commissions and County Medical Societies is established. It is understood that no precedents are established and that these regulations are effective only during the emergency period. County secretaries are requested to inform the State Secretary as to the details of their local agreement and operation.

MUSKEGON COUNTY LEADS

On November 7, 1933, Muskegon County Medical Society remitted in full the 1934 state dues for its entire membership of sixty-one members. A 100 per cent enrollment and payment. What a splendid representation!! To Muskegon goes the banner, honor and glory for 1934. They scooped the state and wrested this honor that was held by Ingham County during 1933.

As we check over county activity it is found that the members constituting the Muskegon County Society have maintained a most achieving organization that has been unfalteringly loyal to our state organization. It has represented the profession and our organizational purposes in a most commendable manner. It has maintained our ideals and recorded sustaining coöperation. The Muskegon County Medical Society can be cited as an exemplary county unit.

Outstanding in their activities is their solution of dealing with public officials in matters pertaining to public welfare and the care of indigents. Their participation in civic movements has been a factor in community life and the creating of a cordial public relationship.

We salute Muskegon County and applaud them with a hearty "Well Done."

Muskegon, Michigan
November 7, 1933

F. W. Warnshuis, M.D.
Grand Rapids, Michigan
Dear Sir:

Muskegon County hopes to be the first to pay 1934 County Medical Society dues. Enclosed please note our check for our entire Society of sixty-one members. If we are first we would be pleased to be recognized in the State Medical Journal.

The Muskegon County Medical Society held their October meeting at the Century Club, October 27, 1933. Sixty-six members and guests sat down to a 6:30 dinner. Dr. Henry Vaughn, P. H. of Detroit, was guest speaker. Our other guests were the Mayor of Muskegon and Commissioners, the Mayor of Muskegon Heights and Councilmen, the Mayor of North Muskegon and Councilmen, the Chairman of the County Board of Supervisors and the Committee on Public Health of the Board of Supervisors.

M. E. STONE, *Secretary.*

HOWARD H. CUMMINGS, M.D.

COUNCILOR FOURTEENTH DISTRICT

When the vacancy in the office of Councilor of the 14th District occurred due to the resignation of Doctor Bruce it became incumbent upon President Le Fevre to appoint a successor. After conference and recommendations of the county societies constituting the district, Howard Hastings Cummings, M.D., of Ann Arbor was appointed for the unexpired term.

DR. HOWARD H. CUMMINGS

This appointment is bound to receive state approval because of the character, reputation and ability of the appointee. Dr. Cummings has always recorded interest and helpful assistance to organizational activities. The following references attest his qualifications.

CUMMINGS, HOWARD HASTINGS

GYNECOLOGIST AND OBSTETRICIAN

Born—Wellsville, N. Y., June 7, 1885.

Education—grade and high school—Wellsville, N. Y.

University of Michigan—1905-1910—M.D.

Phi Chi Medical Fraternity, Alpha Omega Alpha, Sigma Xi, Galens.

Student assistant, physiology, medical school University of Michigan, 1907-1909, and pathology staff 1909-1910.

Practiced gynecology and obstetrics 1910-1933. Licensed—Michigan 1910.

Assistant in the department of gynecology and obstetrics, Medical School, University of Michigan, 1910-1911. Instructor in gynecology and obstetrics, 1911-1914.

Executive head of the University Health Service, 1914-1918.

Part time associate, Department of Obstetrics and Gynecology, 1918-1920.

Selective Draft Board—First aid instructor to students—Red Cross.

Formed two ambulance corps from the University of Michigan for service with the French army.

Gynecologist and obstetrician—St. Joseph's Mercy Hospital.

Member—American Medical Association, Michigan State Medical Society, Washtenaw County Medical Society, one time president of county society, Michigan Trudeau Society, Fellow American College of Surgeons, Detroit Obstetrical and Gynecological Society, Central Association of Obstetricians and Gynecologists.

In 1910 Dr. Cummings married Miss Lou Braisted of Grand Rapids. They have two children: Robert, who is a medical student, and Lou, who is an art student.

A MICHIGAN NIGHT

Through the arrangements of the program committee of the Wayne County Society, January 15 will be a State Society Night for that county unit. The Council will be in session and will attend that evening's meeting. The following program will govern:

MICHIGAN STATE MEDICAL SOCIETY NIGHT

Sponsoring the presence of the Officers and Council of the State Society

Monday, January 15, 1934

1. State Society Objectives (10 min.)—G. L. LeFevre, President.
2. State Institutions (10 min.)—R. R. Smith, President-elect.
3. Council Responsibilities (10 min.)—B. R. Corbus, Chairman.
4. The State Society: Its Activities, Strength and Weakness (25 min.)—F. C. Warnshuis, Secretary.
5. Your Questions and Inquiries. (An opportunity to ask and secure information.)

MINUTES OF THE SPECIAL MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

1. A special meeting of the Executive Committee of the Council of the Michigan State Medical Society was held in Grand Rapids on Thursday, November 2, 1933, with the following present: B. R. Corbus, H. A. Luce, F. A. Baker, C. E. Boys, Richard R. Smith, George L. LeFevre, W. H. Marshall, Nathan Sinai, F. C. Warnshuis.

2. The Secretary presented a financial statement and also a statement regarding delinquent members. He reported that on noon, November 1, there were 501 delinquent members and that on noon, November 2, there were 475 delinquent members. This delinquency is less than 9 per cent. The Secretary had during the month sent out two letters to delinquent members which reduced the delinquency from 1,200 to the above figure. The second letter went out November 1 and the response from this last communication is just commencing to come in. It is estimated that we will secure the payment of dues from at least 200 more delinquent members. This will reduce our delinquency to the average reflected in former years. In view of existing conditions this is a splendid response on the part of the members.

3. The Secretary presented a communication from the Medical-Legal Committee relative to members carrying Insurance Company policy protection. After some discussion, on motion of Doctors Luce-Baker, the Secretary was directed to informally secure data for consideration by the entire Council.

4. The Secretary presented a letter from Mr. Barbour, the Society's attorney, advancing the information that impounded dues were the loss of the Society because the County Society acted as agent.

5. The Secretary presented a communication from the Committee on Medical Economics which contained the following extracts from the minutes of its meeting held on October 26, 1933.

"Doctor J. D. Bruce appeared before the Committee and made the following statement: 'I might say that practically every one who has read the report has been impressed with its possibilities; the work has been most intelligently done. I have not found any evidence anywhere in the report of an attempt to prove any pre-conceived ideas.' "

After further comments along similar lines relative to the value of the report, Doctor Bruce made the following statement:

"I approached some friends of mine with the result that I have received a grant of from $7,500 to $10,000. One of the most important men concerned with giving us this money is out of the State and those associated with him do not wish to present his name at this time because they don't know if it is going to come from a joint fund or from his personal resources. His is an organization that has had to do with nothing but the highest type of philanthropy. It is commended by every one. If I had the privilege of telling you the name, that would be all that you would ask as to evidence of its unimpeachable character. You can safely take my word on that point at present. I will see that the money will be forthcoming and I am hoping that at the next meeting I can tell you the source. I give you my personal guarantee which will permit you to go forward with the work at the present time. Connected with this grant are no ideas or thoughts or opinions as to what will be done and what won't be done; it is simply given with the view that we will establish a service of use to the people of the State. The money is tendered to the Michigan State Medical Society."

6. The Committee on Economics recommended to the Council that the above tender and grant be accepted.

There was some discussion. Doctors Luce and Baker stated that they knew the donor and knew that the Society could accept this donation without being obligated to any particular program or activity.

On motion of Doctors Luce-Boys that this gift given to the Michigan State Medical Society for the pursuit of medical economic studies to the end that public welfare be benefited be accepted, the motion was duly carried. The Secretary was instructed to so notify Doctor Bruce.

7. The Committee on Medical Economics submitted to the Council the following budget for the ensuing year:

COMMITTEE ON MEDICAL ECONOMICS

BUDGET

September 15, 1933, to September 15, 1934

ITEM	SALARIES	EXPENSE	TRAVEL	TOTAL
Committee on Medical Economics			$800.00	$ 800.00
Director of Sudies	$3,000.00		300.00	3,300.00
Secretarial & Clerical	1,500.00			1,500.00
Office		$300.00		300.00
Telephone & Telegraph		240.00		240.00
Postage		350.00		350.00
Mimeographing & Printing		250.00*		250.00*
Charts and Graphs		100.00		100.00
Study Analysis:				
Postgraduate Data		750.00		750.00
Care of the Indigent		500.00		500.00
Health Insurance		300.00		300.00
Miscellaneous		500.00		500.00
Total				$8,890.00*

*Exclusive of publication of reports.

SOURCES OF FUNDS

Michigan State Medical Society (Sept. 15 to Oct. 15, 1933)	$ 400.00
Other sources	8,490.00
	$8,890.00

After some discussion, upon motion of Doctors

Luce-Boys, the Secretary was directed to submit this budget to the Council's Finance Committee for study, investigation and report and that pending the action of the Finance Committee and the Council the Secreatry be authorized to advance from the contribution, when received, the sum of $1,350 to enable the Economics Committee to defray current expenses and initiate its program of activity. After discussion this motion was carried.

8. Upon motion of Doctors Baker-Boys, the Executive Committee approved the appointments made by the Speaker of the House of Delegates of the Committee on Preventive Medicine and the Committee on Medical Economics. President LeFevre submitted a communication from Dr. H. W. Yates of Detroit requesting the appointment of a Committee on Cancer. The President submitted the following names to constitute the Cancer Committee: Dr. O. A. Brines, Chairman, Detroit; Dr. T. Leucutia, Detroit; Dr. Carl V. Weller, Ann Arbor; Dr. H. J. Vanden Berg, Grand Rapids; Dr. J. G. R. Manwaring, Flint.

Upon motion of Doctors Boys-Baker the above appointments were confirmed.

9. President LeFevre submitted to the committee a communication from Dr. J. B. Jackson imparting the information that inasmuch as the Governor had appointed Dr. H. B. Fenech as a member of the Crippled Children's Commission he desired to be relieved from further representing the profession. The Secretary was directed to communicate with Doctor Jackson and ascertain whether or not it would be advisable for him to still continue to represent the State Society. Pending a reply from Doctor Jackson, the communication was placed upon the table.

10. The Secretary made an extended report of the activities of his office and that of Doctors Corbus, Marshall and Sinai in reference to contacts made with the State Federal Relief Commission. The entire problem of the profession's relationship to this State Welfare activity was explained in detail and there was presented an outline of a statement to be made to the State Relief Commission. This was fully discussed. This statement is being sent to the members of the Council and County Medical Societies. Upon motion of Doctors Luce-Boys, the Secretary was directed to present this communication to the State Relief Commission, to send a copy to each member of the Council, send a copy to each County Medical Society and that Doctors Corbus, Marshall, Sinai and Warnshuis be designated to act in an advisory capacity with the State Emergency Commission. After further discussion the above motion was carried.

11. Attention was directed to the Preventive Health Conference on November 15 and notices of this Conference were directed to be sent to all County Societies.

The Committee adjourned at 11:10 P. M.

(Signed) F. C. Warnshuis, *Secretary.*

COUNTY SOCIETIES

BAY COUNTY

The following meetings have been held by the Bay County Medical Society:

Sept. 27, 1933:

Speaker, Dr. F. Pitkin Husted, Bay City, Mich.
Subject, "Delayed Surgical Treatment of Generalized Peritonitis in Ruptured Appendicitis."

There were thirty-seven present at the meeting.

Oct. 11, 1933:

Speaker, Dr. Palmer Sutton, Royal Oak, Mich.
Subject, "Contraception and Its Technique."

There were thirty-two present.

Oct. 25, 1933:

Speakers, Dr. Henry F. Vaughn, Detroit, Mich.; Dr. L. O. Lieb, Detroit, Mich.
Subject, "A Plan of Medical Participation."

There were thirty-two present.

Nov. 8, 1933:

Speaker, Dr. Henry Ransom, Ann Arbor, Mich.
Subject, "Surgical Diseases of the Female Breast."

There were forty-five present.

There has been a marked increase in this year's society meetings which is indicative of an acute interest in things medical.

A delegation of several members attended the meeting of the Preventive Medicine Committee in Detroit, November 15. Dr. Clyde S. Tarter is chairman of the local committee on Preventive Medicine.

L. Fernald Foster, M.D., *Secretary.*

CLINTON COUNTY

After a vacation period of four months the Clinton County Medical Society resumed its annual series of monthly meetings with its opener on October 19, 1933. At this meeting no special papers were presented, since this was a meeting for the election of officers for the ensuing year and a general organizational gathering for the purpose of creating more interest and enthusiasm in our Society's welfare.

This being also a luncheon meeting a very fine lunch was served by the Hospital, which preceded the regular meeting of the Society. The meeting was called to order by Dr. C. T. Foo with the roll call and the reading of the minutes of the previous meeting. We had one guest in the person of Dr. C. B. Porter, formerly of Owosso, Michigan. Dr. Porter expects to become a member of the Clinton County Medical Society, inasmuch as he recently opened up offices here for the practice of medicine, and more specifically, eye, ear, nose and throat. We are glad to welcome Dr. Porter into our Society, and may his locating here be attended with great success and prosperity.

The following officers were elected for the year 1933-34: President, Dr. F. E. Luton, St. Johns; vice president, Dr. W. A. Scott, St. Johns; secretary-treasurer, Dr. T. Y. Ho, St. Johns; delegate, Dr. Dean W. Hart, St. Johns; alternate, Dr. F. D. Richards, DeWitt.

T. Y. Ho, *Secretary.*

GENESEE COUNTY

At the regular meeting of the Genesee County Medical Society, held October 18, the following new officers of the Society were elected to serve until October, 1934: President, Dr. R. S. Morrish; president-elect, Dr. C. P. Clark; secretary, Dr. C. W. Colwell; treasurer, Dr. Vaughn Morrissey; medico-legal officer, Dr. H. E. Randall; delegates—Drs. Geo. Curry, C. F. Moll, and F. E. Reeder; alternate delegates—Drs. Donald Wright, Max Burnell, and H. E. Randall.

The Committee on Preventive Medicine as appointed by our President is as follows: Dr. C. J. Scavarda, Chairman, Dr. L. O. Schantz, and Dr. S. M. Gellenger.

C. W. Colwell, M.D., *Secretary.*

GRATIOT-ISABELLA-CLARE-COUNTY

The October dinner meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, October 19, with twenty-one present for dinner.

President Carney called the meeting to order.

The minutes of the previous meeting were read and approved. A letter from the Wayne County Medical Society was read, stating Dr. Don M. Howell was a member in good standing in their Society, requesting his transfer to our Society. Dr. M. J. Budge, for the Board of Censors, made a motion we accept Doctor Howell as a member of the Gratiot-Isabella-Clare County Medical Society. Motion carried. A letter was read from the State Society, requesting contributions towards the expense of the Committee on Medical Economics. No action was taken and no contributions were made. A letter was read requesting this Society to appoint a Committee on Preventive Medicine. President Carney appointed the following to act on this committee: E. M. Highfield, C. F. DuBois, A. D. Hobbs, M. J. Budge and L. F. Hyslop.

President Carney introduced Dr. Eugene B. Potter from the University Hospital, whose subject was "Peritonitis in Relation to Appendicitis." The doctor used charts to illustrate the most important details of his subject. The paper was discussed by Doctors Hall, Kilborn, Barstow, Becker, DuBois and Hyslop.

A rising vote of thanks was given Doctor Potter for his interesting presentation of this subject.

The November dinner meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Wright Hotel, Alma, Thursday, November 9, with eighteen members and five visitors present. Three members came in after dinner for the program.

President Carney called the meeting to order and introduced Dr. Grover C. Penberthy, who read a paper on "Osteomyelitis in Children," then showed slides to illustrate the subject, which proved very interesting. Several members took advantage of the opportunity to ask Doctor Penberthy questions regarding his subject.

President Carney announced that Doctor Kempton wished to have Doctor O'Donnell present a case of enlarged liver in a boy. The doctor's opinion was that it was likely a malignant growth.

Doctor O'Donnell then talked on the "Artificial Feeding of Infants," using chalk and blackboard to illustrate his points. Doctor O'Donnell answered questions which some of the members asked, after which President Carney asked for a rising vote of thanks to Doctors Penberthy and O'Donnell.

After a short recess the meeting was called to order to hear the reading of the minutes of the previous meeting and also several communications were read. Doctor Carney presented the application of Dr. R. A. Wilcox for membership, which was referred to the Board of Censors.

President Carney announced the following for a nominating committee: Doctors Strange, Budge and Highfield to report at the December meeting.

E. M. Highfield, M.D., *Secretary.*

IONIA-MONTCALM COUNTY

The first meeting of the fall season of the Ionia-Montcalm Medical Society was held at the Reed Inn, Ionia, Tuesday evening, October 10, at seven p. m. Thirty-three members and guests were present for the dinner, with additional members at the meeting.

Minutes of the last meeting were read and approved.

A vote of appreciation was unanimously given to the Governor and our local representative, Mr. M. C. Stout, for their fair and intelligent action on the medical legislation of the past session.

Dr. W. W. Norris, delegate to the State Society, gave a condensed report of the Grand Rapids meeting.

Mr. Philip Schafer, welfare director for Ionia County, gave a talk on the plan of State and County Welfare Relief agencies, especially as to health and medical care.

At his suggestion, a committee was appointed, to coöperate with the County Welfare Commission in matters of dietary budgets, medical and dental fees, etc. The Commission has signified its intention to give welfare patients free choice of physicians whenever possible.

Dr. Maynard assumed charge of the scientific program and introduced Dr. R. J. Hutchinson of Grand Rapids, who presented a very practical paper on "Appendicitis," and Dr. Harry Luton (D.D.S.), Grand Rapids, who spoke on "Some Problems of Extraction."

Both papers were very generally discussed, by both medical and dental members.

The President appointed the following committee to coöperate with the County Welfare Commission: Doctors Hoff, Pinkham, Maynard, Norris, and Winchell (dentist).

The meeting adjourned to November 14.

John J. McCann, *Secretary.*

KALAMAZOO

A regular monthly meeting of the Kalamazoo Academy of Medicine was held in the Academy rooms October 17, 1933, following the dinner. Dr. W. R. Vaughan presided.

The minutes of the last meeting as printed in the Bulletin were accepted.

Dr. Sherman Gregg read the resolutions on the death of Dr. Nex of Allegan.

RESOLUTIONS REGARDING DR. H. A. NEX

To the Officers and Members of
Kalamazoo Academy of Medicine:

Again we are called upon to pause in our busy routine and consider the uncertainty of human life. On August 22, 1933, one of our valued and respected members, Dr. Henry Alfred Nex, of Allegan, answered the final summons and departed this life.

He was a useful and respected citizen of his community, deeply interested in its welfare and progress. Dr. Nex's activities in connection with the Boy Scouts won for him the love of the boys and the admiration of all who are interested in the development and welfare of our future citizens.

Dr. Nex graduated from the Chicago College of Medicine and Surgery in 1917, and was attentive to the duties and responsibilities of his chosen profession.

We mourn his loss and extend our deepest sympathy to his bereaved family.

"I cannot say, and will not say
That he is dead. He is just away.

With a cheery smile, and a wave of the hand,
He has wandered into an unknown land.

And left us dreaming how very fair
It must be, since he lingers there.

Think of him still as the same—I say;
He is not dead—he is just away."

Sherman Gregg, M.D.
Committee.

Drs. Gregg and Collins moved that a copy be spread on the minutes and a copy sent to the family of the bereaved. Carried.

Drs. C. C. Taylor, P. G. Bernard, G. E. Ramseyer, Thomas Schrier, W. D. Irwin and M. Urist were unanimously elected to membership.

Dr. Vaughan appointed the following committee to act as the Committee on Preventive Medicine recommended by the State Society: Dr. Collins, chairman; Dr. Stryker and Dr. D. Rockwell.

Dr. Bennett called the attention of the members to the new Federal Emergency Relief Administration Act which provides for medical care of the

indigent during the present emergency of economic stress. The Federal Government is to assume one-third of this cost, the State one-third, and the local government one-third. Dr. Ernest B. Harper is the local administrator of this act and has asked for a fee schedule. Drs. Shook and S. E. Andrews moved that a committee be appointed to draw up a fee schedule for consideration to present to Dr. Harper. Motion carried.

Dr. Vaughan appointed as the committee Dr. Hoebeke, chairman; Dr. Stewart and Dr. Fast.

The essay of the evening was given by Dr. James H. Hutton on "Clinical Applications of Recent Progress in Pituitary Physiology and Preparations."

Discussion by Drs. Gustus (Upjohn Co.), West cott, Gerstner, Pullon, Morter, F. T. Andrews and Hutton.

R. J. HUBBELL, *Secretary.*

LIVINGSTON COUNTY

The Livingston County Medical Society had its first fall meeting, following the summer recess, September 1, at the State Sanatorium. According to custom, a dinner preceded the medical meeting and Dr. Norman R. Kretzschmar, of the Department of Gynecology and Obstetrics of the University of Michigan Hospital, gave an interesting and well received discussion on timely topics germane to his specialty.

Dr. Kretzschmar covered the modern interpretation of backache in geneological practice; the significance and differential diagnosis of bleeding in the last trimester of pregnancy; and, perhaps most interesting of all, a concise outline of recent research on the endocrines in relation to female diseases, with a few statements as to the practical application of this knowledge therapeutically. He also stressed the importance of the time factor in the laboratory interpretation of the Aschheim-Zondek test for pregnancy. Following the social and medical phase of the meeting, a brief business session was called to order by the President, Dr. G. L. Leslie. It was informally agreed that the annual election of officers should take place in December of each year and the fiscal year of the Society should start January 1, concurrently with the calendar.

The October meeting was held at the State Sanatorium on the night of Friday, October 6. Dr. William J. Stapleton, Jr., of Detroit, was the speaker and presented a most valuable and enlightening informal talk on "Malpractice." Considerable discussion followed. The following were voted in as members: Drs. David Salkin and Harold C. Hill, of Howell, and Dr. A. D. Robertson, of Brighton. Members of the Livingston Dental Association were our guests for this meeting.

R. S. ANDERSON, M.D., *Secretary.*

MIDLAND COUNTY

The Midland County Medical Society held a meeting at the country club, October 10, 1933. Seven members were present and enjoyed a lunch together, after which about two hours were spent in social entertainment.

During the business session a motion was made by Dr. High, Jr., that a committee be appointed to meet the poor board to seek the best terms for care of the indigent poor. Carried.

The committee appointed consists of Dr. W. D. Towsley and Dr. C. V. High, Jr.

Motion was made by Dr. Sherk that we decline service under hospital insurance unless satisfactory to all members. Carried.

Dr. David Littlejohn, our county health doctor, and Dr. Martin Bruton, whose names were presented at the last meeting, were approved as members of this society.

After the social hour we adjourned to meet upon the call of the president.

E. J. DOUGHER, *Secretary.*

SAINT CLAIR COUNTY

A regular meeting of the Saint Clair County Society was held, Tuesday, October 17, 1933, at Port Huron Hospital, Port Huron, Michigan. Supper was served to sixteen members and two guests at 6:30 p. m. and the meeting called to order by President McColl at 7:15 p. m. with three guests and 18 members present. The guests were Doctor Camp of Ann Arbor and Doctors Best and Crankshaw of the Lapeer County Medical Society.

Reading of the minutes of the preceding meeting were dispensed with upon suggestion of Doctor Heavenrich. The Secretary read several communications and announced a new committee on preventive medicine, consisting of Doctors Callery, Brush, and Treadgold. An application for membership without check for dues was not acted upon by order of President McColl and the Secretary was instructed to write applicant requesting a check so that the matter could be acted upon in accordance with the by-laws.

Doctor Patterson, chairman of the Committee on the Medical Care of the Indigent, made a verbal report stating that his committee had reached a fee agreement and a plan for local hospitalization of crippled and afflicted children. He said the fee schedule of the C. C. C. was satisfactory to the supervisors with the exception that surgical fees were reduced 25 per cent from the fee named on the schedule. The report was accepted. Doctor Heavenrich suggested the same committee be instructed to act in drawing up the necessary agreements between the county, the C. C. C. and hospital as well as the Medical Society. Doctor McColl instructed the committee so to act in case there was any delay in effecting the needed agreements. Doctor Heavenrich stated a member of a County Society was as a matter of fact a member of the A. M. A. This is necessary because the C. C. C. requires that minors must be treated at a hospital approved by that organization and by physicians who are members of the A. M. A. Doctor Battley reported with regard to the physical examination to be required by the local Boy Scout Council and presented a physical examination blank. It was decided upon motion of Doctor Thomas, supported by Doctor Patterson, that each physician set his own fee for these examinations.

Dr. Carl Camp was then introduced to the Society by President McColl in a few well chosen words. Dr. Camp addressed the Society upon the subject, "Some Observations on Neurological Diagnosis and Treatment." The speaker covered the following subjects in an interesting and entertaining manner: traumatic neuroses, malingering, traumatic hysteria, traumatic encephalitis, hysteria, psychoneuroses and general convulsive seizures. In his discussion of traumatic encephalitis Dr. Camp demonstrated brain pathology by showing encephalograms of the normal patient in contrast with a case of traumatic encephalitis. During the program Dr. Camp paused frequently and invited any questions pertinent to the subject under discussion and after concluding his remarks there was a short period of general discussion of many interesting cases in which nearly every physician present had a part.

This was a very interesting and profitable meeting. Before adjournment Dr. McColl thanked Dr. Camp for coming over from Ann Arbor and giving

us a very pleasant and instructive talk. The meeting adjourned at 10:00 p. m.

A regular meeting of the society was held at Port Huron Hospital, Port Huron, Michigan, Tuesday, November 7, 1933.

Supper was served to twenty-six members and guests at 6:30 p. m. and before the meeting was called to order at 7:15 p. m., several others were in attendance.

President D. J. McColl presided. The secretary read the minutes of the meeting of October 17 which were approved as read. The application of Dr. Howard R. Johnson of Capac was received, acted upon favorably by the censors and the doctor duly elected to membership. Upon a motion made by Dr. Heavenrich, supported by Dr. Schaefer, the secretary was instructed to accept fees for membership from new members between November 7 and December 31, the same to apply as dues for the year 1934. The motion carried. Announcements were read by the secretary.

Dr. Heavenrich read a communication from H. H. Howitt, secretary of the Michigan Crippled Children's Commission, relative to certain operations authorized to be performed at the Port Huron Hospital. Dr. Heavenrich stated that the commission did not meet until December 5 and could not finally approve the admission of crippled and afflicted children to Port Huron Hospital, but that Judge Black of the Probate Court had been instructed to admit cases to the hospital in the interim.

The secretary read several communications. One from Dr. H. R. Johnson, requesting the Capac Hospital to be designated to receive patients under the C. C. Act, was referred to the standing committee of the society, known as the Committee on Medical Care of the Indigent, of which Dr. D. W. Patterson is chairman.

President McColl requested and received permission from the society in regard to a probable change in the meeting of December 5, 1933, because of a banquet extended to local football teams on that date.

Applications for membership were received from Drs. Pollack and Ault and were referred to the censors by direction of President McColl with a request for action before the next meeting.

The president then introduced the speaker of the evening, Dr. John L. Chester of Detroit.

Dr. Chester read a paper on "Cardio-vascular Syphilis." The paper was well received and was followed by a discussion led by Drs. Meredith and MacKenzie, after which Dr. Chester closed the discussion in the usual manner.

A rising vote of thanks was extended to Dr. Chester by the members of the soceity and a motion carried to the effect that the secretary forward the paper to Dr. James H. Dempster of Detroit with a request it be published in the JOURNAL.

The following guests were present, in addition to Dr. Chester: Doctors Thompson and Hand of Detroit, Drs. Pollack, Ault and Burke of St. Clair County and Dr. Crankshaw of Imlay City.

The meeting adjourned at 9:30 p. m.

GEORGE M. KESL, *Secretary-Treasurer.*

TRI-COUNTY

The following is the list of Tri-County officers for the ensuing year elected at our meeting, October 26: President, Dr. J. F. Gruber; first vice president, Dr. W. A. Crawford; second vice president, Dr. Gregory Moore; secretary-treasurer, Dr. J. F. Carrow; delegate, Dr. W. Joe Smith; alternate, Dr. J. F. Gruber.

The following committees were appointed: Finance Committee, Dr. S. C. Moore; Legal Committee, Dr. J. F. Carrow; Program Committee, Dr. J. F. Carrow, Larry Showalter, F. A. Torrey and Benton Holm.

After the election of officers a paper was read on "Cancer of the Cervix" by Dr. Benton Holm of Cadillac, also one on "Ectopic Pregnancy" by Dr. Larry Showalter of Cadillac.

Our Medical Clearing House is working fairly satisfactorily with a full time manager who is provided with a car, works on a small salary and commission, and pays money collected to the several doctors on the ratio of the amount of their bills. This clearing house also furnishes a medical credit service to all its members if they care to use it.

If there is any other organization of this kind in the state we would like to learn about it so as to get in touch with them. After a sufficient time has elapsed to have proven the success or failure of our organization we will give a complete report of it.

J. F. CARROW, *Secretary.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. F. A. MERCER, President, Pontiac, Mich.
MRS. E. L. WHITNEY, Vice President, Detroit, Mich.
MRS. HERBERT HEITSCH, Secretary, Pontiac, Mich.

SAGINAW COUNTY

Completing seventy-six tray cloths and twenty-one towels for Saginaw General Hospital and mending twelve garments for the City Hospital, members of the Auxiliary to the Saginaw Medical Society, met for a sewing session, Thursday afternoon, October 27, at the home of Mrs. J. A. McLandress.

Plans were made during the business session for a subscription bridge dinner to be given at 6:30 p. m., November 16, at the home of Dr. and Mrs. Julius Powers, the proceeds of the party to be used for the placing of the magazine *Hygeia* in public places.

Refreshments were served late in the afternoon.

MRS. J. A. MCLANDRESS, *Publicity Chairman.*

WAYNE COUNTY

The past month has been a busy one for members of the Woman's Auxiliary to the Wayne County Medical Society.

There have been sewing meetings at the homes of Mrs. Claire L. Straith, president; Mrs. Percival J. Abbott, chairman of the welfare committee, and Mrs. A. Gerald Walters. These meetings, held every other Thursday, start at ten o'clock in the morning and last through the afternoon. The ladies have been making maternity kits for the use of members of the Wayne County Medical Society in charity cases.

A series of duplicate contract bridge tournaments is under way, taking place in the club rooms every other Tuesday. The first one was held on October 24, the second on November 7, and the third on November 21. Mr. Frank Eaton, of the Detroit Bridge Studio, is in charge of these. There are prizes for the evening, and later a tournament prize, adjudged on a percentage basis, will be awarded.

The Ways and Means Committee is sponsoring a sale of book-markers. These are in the form of piano keys and can be used as Christmas gifts. A number of the members have been using them as tallies—giving "get acquainted" bridge parties to which they invite doctors' wives living in the neighborhood. The proceeds of their sale goes to the piano fund.

On October 28, the dramatic sections of the

Wayne County Medical Society and Noon-day Study Club presented two one-act plays at the Players' Playhouse. These were so well received that it was decided to have another dramatic night in the spring. The Social Committee of the Woman's Auxiliary was in charge of the supper which followed.

One of the outstanding events on the calendar of the Auxiliary took place on November 14, at the Masonic Temple, when the regular monthly meeting took the form of a "Bring Your Husband" dinner, held at 6:30 in the evening.

The program consisted of music, dancing, and speeches, every effort being made to direct the thought of the evening away from professional cares.

Music and entertainment were furnished by the "Dixie Eight," popular musicians of the Ford Motor Car Company.

The invocation was offered by Dr. Charles B. Allen of the Metropolitan Church.

Among those who addressed the assembly were Dr. Alexander W. Blain, president of the Wayne County Medical Society, and Mrs. Claire L. Straith, president of the Auxiliary. Dr. Louis J. Hirschman, chairman of the Advisory Board to the State Auxiliary, acted as toastmaster.

Professor John Lewis Brumm, director of the Department of Journalism at the University of Michigan, was the guest speaker. His subject was "The Menace of Efficiency."

The program was interspersed with general singing, led by Mr. Harry A. McDonald; and after the dinner there were both dancing and cards.

There are many other interesting events scheduled to take place in the near future. One of the most important of these is the Children's Party, which will take place on December 16.

The Auxiliary is well pleased with the response to the letters sent out at the beginning of the club year. Up to date forty-eight names have been added to the membership list.

MRS. CLIFFORD LORANGER, *Publicity Chairman.*

GENERAL NEWS AND ANNOUNCEMENTS

The Council will hold its mid-winter session in Detroit on January 15, 1934.

Some 200 doctors attended the Preventive Medicine Committee's conference in Detroit on November 15.

A joint meeting of the Detroit Pediatrics Society and the American Academy of Pediatrics will be held at the Children's Hospital, Detroit, December 6, 1933.

"A Discussion of Gallbladder Disease and Its Management" was the subject of an address by Dr. Henry J. Vanden Berg before the Calhoun County Medical Society November 7.

The Rainbow is an interesting little paper, the official organ of the Detroit League of the Hard of Hearing. The editor is Dr. Emil Amberg. The current number contains a radio interview by Dr. Amberg on the subject "The Ear Handicapped."

Dr. P. R. Urmston, Councilor 10th District, was recently appointed to the County Board of Supervisors of Bay County to fill an unexpired term of a resigned member. He was appointed by the City Commission of Bay City.

A very happy event (no not a wedding) took place at Yale, Michigan, where the mayor proclaimed a half holiday for celebration and a banquet in honor of Dr. Beniamin Clyne on the completion of half a century in the practice of medicine. Dr. Clyne graduated from the University of Michigan in the class of 1883.

Dr. Kenneth Pierce, son of Dr. and Mrs. Frank Pierce, of Detroit, has located at Dowagiac, Michigan, where he has taken over the surgical practice of the late Dr. Green. Dr. Pierce is a graduate of the University Medical School. Following his graduation he was assistant in the department of anatomy and later for one year instructor in surgery.

The Forum for November, 1933, contains a very interesting article entitled "The Case Against State Medicine," by Dr. Wingate M. Johnson, a graduate of the Jefferson Medical College. Dr. Johnson is in practice in Massachusetts. He writes well and the case is admirably and convincingly presented. The readers of this JOURNAL are invited to peruse this paper in *The Forum.*

At the annual meeting of the Detroit Academy of Medicine held at the University Club the members were the guests of Dr. Grover C. Penberthy, the retiring president. The election of officers for the ensuing year resulted as follows: President, Dr. George Kamperman; vice president, Dr. Henry R. Carstens; secretary-treasurer, Dr. Edward D. Spalding. Dr. W. J. Cree is historian of The Academy. The subject of Dr. Penberthy's address was "The Surgery of Children."

SPEAKERS FOR EIGHTH ANNUAL CLINIC

HIGHLAND PARK PHYSICIANS CLUB

December 6, 1933

1. Dr. Harry R. Foerster, Assistant Professor of Dermatology, Marquette University and University of Wisconsin—"Common Fungus Infections of the Skin; their Diagnosis and Treatment."
2. Dr. Thomas C. Galloway, Attending Laryngologist, Cook County Hospital, Chicago, Illinois—"Surgical Diathermy in Malignancy."
3. Dr. Carl A. Hedblom, Professor of Surgery, Northwestern University Medical School—"Thoracic Tumors."
4. Dr. Bransford Lewis, Emeritus Professor of Urology—"Renal Colic without Pain: (a) Regurgitation Renal Colic; (b) Referred Nervous Renal Colic."
5. Dr. Isadore Pilot, Assistant Professor of Clinical Medicine and Pathology, University of Illinois, College of Medicine—"Pathogenesis of Rheumatic Conditions; A Modified Conception of Focal Infection."
6. Dr. Edward Speidel, Professor of Obstetrics, University of Louisville School of Medicine—"Difficult Deliveries."
7. Dr. R. Glen Spurling, Assistant Professor of Surgery, University of Louisville School of Medicine—"Spasmodic Tortecollis."
8. Dr. Robert Sonnenschein, Assistant Clinical Professor of Laryngology and Otology, Rush Medical College, University of Chicago—"Reflex Signs and Symptoms of Otolaryngology with Reference to General Literature."

POST-GRADUATE COURSE IN PSYCHIATRY AND NEUROLOGY

Beginning January 22, 1934, the Department of Post-graduate Medicine at the University will offer a five-day course in Psychiatry and Neurology for the physician in general practice. An outline of the program will be given in the January issue.

Under the direction of Dr. A. M. Barrett, Director of the State Psychopathic Hospital and Professor of Psychiatry, Dr. Carl Camp, Professor of Neurology, Dr. Max M. Peet, Professor of Surgery, and Dr. Udo J. Wile, Professor of Dermatology at the University, assisted by several nationally known psychiatrists from other medical centers, the general practitioner will be offered instruction, particularly concerning the diagnosis and management of the minor psychoses. These conditions are becoming more and more common. They may either stimulate or mask organic disease, and they form a definite percentage of office practice. They probably compose a large part of the irregular's clientele.

The neurological section, occupying about one-third of the program, will present diagnostic and clinical demonstrations of value in general practice.

Such a program should be well attended since it offers instruction in a phase of medical practice which has been generally neglected in both undergraduate and post-graduate teaching.

WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society program for December is as follows:

December 4—Dr. C. C. Little, past president of the University of Michigan, who will speak on "Cancer Can Be Prevented."

December 11—Dr. John E. Gordon, Detroit, will outline his experiences in contagious disease and preventive medicine work during his recent post-graduate year in Europe.

December 18—Symposium on Treatment of Automobile Injuries.

1. How—Why—Prevention, by Commissioner of Police Smith of Detroit.
2. Head Injuries, by E. S. Gurdjian, M.D., Detroit.
3. Injuries of Long Bones, by A. D. LaFerte, M.D., Detroit.
4. Injuries to Urological Tract, by H. W. Plaggemeyer, M.D., Detroit.
5. Injuries to Abdomen, by H. K. Shawan, M.D., Detroit.
6. Plastic Repair, by C. L. Straith, M.D., Detroit.

All members of the Michigan State Medical Society are cordially invited to attend these meetings, held on Mondays at 8:45 p.m., in the lecture hall of the Detroit Institute of Arts. Entrance on Woodward Avenue.

Three radio stations in Detroit are contributing fifteen minutes each to the Wayne County Medical Society every week for the broadcasting of health talks in question and answer form. The stations are WWJ, CKLW, and WXYZ. The Committee on Public Information of the Society, head by Dr. Wm. J. Stapleton, has developed a stereotype introduction and signature to be used by physicians presented in the Wayne County Medical Society's program. Dr. Fred H. Cole is chairman of the Radio Bureau which handles the many details of arranging these three broadcasts every week. The results, judged from letters received in the executive office of the society and by the radio stations, are well worth the great effort expended in continuing this work.

Dr. J. M. Robb, past president of the Michigan State Medical Society and of the Wayne County Medical Society, will be honored on December 4 in the club rooms of the society, 4421 Woodward at Canfield, Detroit, in the second of the series of "Past President's Night." The social session will follow the scientific program held in the Institute of Arts.

"The Afflicted Child Law" was explained in detail in *The Detroit Medical News* of November 13, and "Federal Aid in Medical Care" was the subject of a treatise on the Emergency Relief Administration's Bulletin No. 7, published in the *Medical News* of November 20. This weekly organ is attempting to keep the medical profession of Wayne County informed on economic questions and legal procedures affecting the practice of medicine.

Do you wish a speaker for your county medical society program? If so, telephone or write The Speakers' Bureau of the Wayne County Medical Society, 4421 Woodward, Detroit. An excellent lecturer will be supplied to discuss the subject or present the symposium desired by your membership. State the exact time, place and date of your meeting, the average attendance, and the lecturer or subject desired. Please give at least two weeks' notice, to allow time for arrangements.

When in Detroit, take luncheon in the club rooms of the Wayne County Medical Society, Woodward at Canfield, Detroit. Your wife also will be welcome. The best food in town, at cost prices! You will meet many old friends, and become acquainted with new ones.

January 22, 1934, is set apart by the Wayne County Medical Society for a rally on Tuberculosis. All members of the Michigan State Medical Society are invited to attend. The subject will be "Pathogenesis and Symptomatology of Childhood Tuberculosis." The speakers will be Dr. Henry Sweany, of Chicago, Director of the Research Department of the Chicago Municipal Tuberculosis Sanitarium; Dr. Bruce Lockwood, chairman of the public health committee of Wayne County Medical Society. Dr. Henry Vaughn, commissioner of health, will also address the meeting on the subject of "Medical Participation."

The following physicians attended the special post-graduate course in Electrocardiographic Diagnosis given by Dr. Frank N. Wilson, in Ann Arbor at the University Hospital on November 6 to 11, 1933.

Dr. Ciahard Ashman, New Orleans, La.
Dr. J. M. Bamber, New Orleans, La.
Dr. O. A. Brines, Detroit, Mich.
Dr. F. C. Clifford, Toledo, Ohio
Dr. Thomas J. Coogan, Chicago, Ill.
Dr. P. H. Darpin, Detroit, Mich.
Dr. S. L. Gabby, Elgin, Ill.
Dr. C. W. Geiter, Detroit, Mich.
Dr. James L. Gouaux, New Orleans, La.
Dr. Lyman K. Gould, Fort Wayne, Ind.
Dr. Carlos R. Hills, Battle Creek, Mich.
Dr. M. W. Neidus, Youngstown, Ohio
Dr. Hazel Prentice, Kalamazoo, Mich.
Dr. E. H. Rogers, Milwaukee, Wis.
Dr. George W. Shriver, Charleston, W. Va.
Dr. C. C. Taylor, Indianapolis, Ind.
Dr. F. A. Weiser, Detroit, Michigan.

INDEX TO VOLUME XXXII

AUTHOR'S INDEX

PAGE

Alexander, John 637
Aronstam, Noah E. 352

Barnes, D. J. 242
Berris, J. M. 355
Binz, Arthur 113
Bittker, I. I. 399
Branch, Hira E. 35
Brines, O. S. 665
Burr, George C. 579

Camp, Carl D. 92
Canfield, Norton 108
Cannon, W. B. 155, 215
Carter, L. F. 549
Cary, William R., Jr. 648
Chester, John L. 171
Coller, Frederick A. 211, 573
Conway, William S. 354
Cooper, J. E. 100
Credille, Barney A. 167

Daniels, Lewis E. 553
Davis, C. R. 235
Davis, David B. 237
Dubnove, Aaron 400

Ellet, W. C. 239
Evans, William A. 181

Fenton, D. W. 432
Flora, William R. 579
Freund, Hugo A. 90

Geib, L. O. 183
Gordon, T. D. 165

Haight, Cameron 637
Harrington, Stuart W. 224
Harvey, Miln C. 546
Hasley, Clyde K. 168
Henthorn, Arthur C. 246
Hewitt, Herbert W. 445
Hirschman, Louis J. 534
Hubbell, R. J. 442
Hudson, William A. 506
Hughes, Boland 113

Jamieson, R. C. 486
Jennings, C. G. 85
Johns, Joseph 180
Johnstone, Ben I. 479
Jones, Jerry M. 557

Keim, Harther L. 228
Kidner, F. C. 419
Kretzschmar, Norman R. 98

Larsson, B. H. 490
Lashmet, F. S. 317
Levin, Samuel J. 436

McMillan, L. B. 365

MacLean, Arthur J. 392
Malfroid, B. W. 25
Maloney, F. G. H. 362
Metzger, Harry C. 349
Miller, Norman F. 1, 655
Monfort, Robert Newton 577

Nesbitt, Reed M. 440

Osius, Eugene A. 641

Peabody, C. W. 28
Peck, Franklin B. 359
Potter, Eugene B. 573

Randall, H. E. 652
Richards, G. E. 75
Rickhoff, George G. 95
Robb, J. M. 531
Roehm, Harold R. 659
Rosen, Robert 102
Rosenfeld, Joseph E. 656

Saltzstein, Harry C. 360
Sander, John F. 109
Sanderson, S. E. 545
Sandweiss, David J. 177
Savage, Lloyd L. 54
Schleicher, E. M. 383
Seybold, G. A. 390
Shaffer, Loren W. 648
Sharp, E. A. 383
Shawan, H. K. 324
Sisson, Raymond J. 394
Slevin, John George 21, 445
Snyder, Le Moyne 540
Soule, M. H. 8
Stapleton, William J., Jr. 661
Suker, George F. 319

Tamblyn, F. W. 553
Turcotte, Vincent J. 95

Vanden Berg, Henry J. 4, 428
Vander Voort, William V. 14

Weyher, R. F. 396
Wittenberg, A. A. 500

CONTRIBUTED ARTICLES

Abdominal Drainage. Arthur C. Henthorn, M.D., 246.
Acromegaly, Complicated by Diabetes. Aaron Dubnove, M.D., 400.
Allergy, An Observation on a Very Common Cause of. I. I. Bittker, M.D., 399.
America's One Undepressed Asset. J. M. Robb, M.D., 531.
Anal Diseases, Important Little Things in the Treatment of. Louis J. Hirschman, M.D., 534.
Anti-Rachitic Concentrates. D. J. Barnes, M.D., 242.
Appendiceal Stumps, Contrasted Effect of Phenol and Merthiolate on. J. Arthur MacLean, Jr., M.D., 392.
Appendicitis, Mortality in. C. R. Davis, M.D., 235.
Arthritis, The Treatment of, by Artificial Fever: Preliminary Report of Twenty Cases. J. M. Berris, M.D., 355.
Asthmatic Child, The. Samuel J. Levin, M.D., 436

Bacteriophage, The. M. H. Soule, M.D., 8.
Bacteriophage, The Use of, in Certain Eye Diseases L. F. Carter, M.D., 549.
Banti's Disease, A Case of, in a Fifteen-year-old Girl. Osborne Allen Brines, M.D., 665.
Bronchial Asthma, Due to Moulds, Report of a Case. Barney A. Credille, M.D., 167.

Cancer. G. A. Seybold, M.D., 390.
Cancer Patient, Management of the Advanced. Harry C. Saltzstein, M.D., 360.
Cerebral Diplegia and Birth Injury, The Relations Between. T. D. Gordon, M.D., 165.
Cerebral Injuries, Acute. H. E. Randall, M.D., 652.
Chemo-therapeutic Possibility, An Important. Boland Hughes, M.D., and Arthur Binz, M.D., 113.
Chronic Hereditary Edema. David B. Davis, M.D., 237.
Clinic Service in Detroit, Trend of. David J. Sandweiss, M.D., 177.
Cranial and Intra-Cranial Injuries, Acute. H. K. Shawan, M.D., 324.
Curriculun of My Hopes, The. Henry J. Vanden Berg, M.D., 428.

Diabetes in Twins. Franklin B. Peck, M.D., 359.
Diabetic Coma, Treatment of. William V. Vander Voort, M.D., 14.
Drugs, Neglected. D. W. Fenton, M.D., 432.

Embolism of the Pulmonary Artery. George G. Rieckhoff, M.D., and Vincent J. Turcotte, M.D., 95.
Empyema, Acute and Chronic, The Surgical Treatment of. Stuart W. Harrington, M.D., 224.
Endocervicitis, Treatment of Chronic. F. G. H. Maloney, M.D., 362.
Endocrine-Therapy, A Preface of. Norman F. Miller, M.D., 655.
Epidermophytosis in School Children, Incidence of Prophylaxis of. Loren W. Shaffer, M.D., and Wm. R. Cary, Jr., 648.
Epidermophytosis of Hands and Feet. Noah E. Aronstam, M.D., 352.

"Green Pastures Nearer Home." W. J. Stapleton, Jr., 661.
Gynecology and Obstetrics, A Work Plan for the Section on. Norman F. Miller, M.D., 1.

Health Examination, The Periodic, History Taking. C. G. Jennings, M.D., 85.
Heart Disease and Pregnancy. Ben I. Johnstone, M.D., 479.
Hemangio-myofibroma of the Uterus. Joseph Johns, M.D., 504.
Hemogram, Schilling's, in the Anemic State. A. Sharp, M.D., and E. M. Schleicher, M.D., 383.
Hemorrhage, Massive Intra-Abdominal, From Ruptured Graafian Follicle Cysts. Herbert W. Hewitt, M.D., and John George Slevin, M.D., 445.

Indians, Studies of Skeletal Remains of. S. E. Sanderson, M.D., 545.
Industrial Backs. F. C. Kidner, M.D., 419.
Intestinal Obstruction Due to Impacted Gallstone. Joseph Johns, M.D., 180.

Knee Joint, Injuries of the. C. W. Peabody, M.D., 28.

Laparotomy, Minimizing Discomfort Following. Le Moyne Snyder, M.D., 540.
Lung, Abscess of the. John Alexander, M.D., and Cameron Haight, M.D., 637.

Maladjusted Woman, Gynecological Symptoms of the. B. W. Malfroid, M.D., 25.
Malignant and Premalignant Dermatoses, The Treatment of. Clyde K. Hasley, M.D., 168.
Malnutrition in School Children, Some Physical Aspects of. John George Slevin, M.D., 21.
Medical Participation—The Answer. L. O. Geib, M.D., 180.
Medical Progress in Sweden, Six Centuries of. B. Hjalmar Larsson, M.D., 490.
Meeting, Special, House of Delegates, 465.
Minutes of the Mid-Winter Session of the Council of the Michigan State Medical Society, 124.
Minutes of the Special Meeting of the Council, 464.

Neurological Examination and Diagnostic Procedures, Comments on. Carl D. Camp, M.D., 92.

Obesity, Recent Conceptions of. A. A. Wittenberg, M.D., 500.
Official Program, 113th Annual Meeting Michigan State Medical Society, September 11, 12, 13, 14, 1933, 450, 513.
Ovarian Disease, Especially in Relation to the Painful Breast. Joseph E. Rosenfeld, M.D., 656.

Parotiditis, Suppurative, Secondary. R. F. Weyher, M.D., 396.
Perineum, Saving the. J. E. Cooper, M.D., 100.
Peritonitis Associated with Appendicitis, The Treatment of. Eugene B. Potter, M.D., and Frederick A. Coller, M.D., 573.
Physical Examination, The Routine. Hugo A. Freund, M.D., 90.
Pituitary Area, Gumma of the. Raymond J. Sisson, M.D., 394.
Post-operative Treatment, Some Important Factors of. Frederick A. Coller, M.D., 211.
Proceedings—Annual Conference of County Secretaries Michigan State Medical Society, 269.
Proceedings—113th Annual Meeting, Michigan State Medical Society, Grand Rapids, September 11 to 14, 1933, 590.
Psoriasis, Dietary Treatment of, A Review of the. R. C. Jamieson, M.D., 486.

Renal Disease, The Importance of Water in the Treatment of. F. S. Lashmet, M.D., 317.
Retinal Vessels, Some Facts Concerning the, in Hypertension. George F. Suker, M.D., 319.
Retinoscopy, A New Method for the Study of. Robert Newton Monfort, M.D., 577.
Retro-pharyngeal Abscess with Hemorrhage and Fatal Outcome. William S. Conway, M.D., 354.
Roentgen-ray Method, The Value of the, in the Diagnosis and Control of Treatment of Tuberculosis. G. E. Richards, M.D., 75.

Scopolamine Alone for the Relief of Pain During Labor. Lewis E. Daniels, M.D., and F. W. Tamblyn, M.D., 553.
Sickle Cell Anemia in a Six Months Old Colored Female Infant. Hira E. Branch, M.D., 35.
Sickness Insurance in Germany, Some Notes on. William A. Evans, M.D., 181.
Sodium Amytal and Avertin in Obstetrics, The Use of. W. C. Ellet, M.D., 239.
State Secretaries and Editors Meet in Chicago, 45.
Streptococcus Meningitis—Report of a Case with Recovery. Norton Canfield, M.D., 108.
Surgery in Goiter. Jerry M. Jones, M.D., 557.

Thoracoplastic Operation, A Selective Type of. William A. Hudson, M.D., 506.
Thyrogenic Heart, The. John L. Chester, M.D., 171.
Triple Typhoid Vaccine, The Intravenous Use of, in Gonorrheal Infections. L. B. McMillan, M.D., 365.
Tuberculosis, Childhood. Harry C. Metzger, M.D., 349.
Tuberculosis of the Skin. Harther L. Keim, M.D., 228.
Tumors and Their Behavior. Henry J. Vanden Berg, M.D., 4.

Undulant Fever (Brucella Infection) in Children. John F. Sander, M.D., 109.
Urethra, The Female. R. J. Hubbell, M.D., 442.
Urethritis, Non-Specific, in the Female: Its Complications and Sequelæ. Reed M. Nesbitt, M.D., 440.
Uterine Bleeding, So-called Essential. Norman R. Kretzschmar, M.D., 98.

Urinary Calculi, Pure Crystalline Carbonate. Case Report. George C. Burr, M.D., and William R. Flora, M.D., 579.

Varicose Ulcer, The Treatment of. Miln C. Harvey, M.D., 546.
Varicose Veins. Eugene A. Osius, M.D., 641.
Vesical Calculi, The General Aspect of. Robert Rosen, M.D., 102.
Vitamin D. The Commercial Exploitation of. Harold R. Roehm, M.D., 659.

DEPARTMENT INDEX

Beaumont Lecture Foundation

1. Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. I. Thirst and Hunger. W. B. Cannon, M.D., 155.
2. Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. II. Important Relations of Digestion and Health. W. B. Cannon, M.D., 215.
3. Some Modern Extensions of Beaumont's Studies on Alexis St. Martin. III. Digestive Disturbance Produced by Pain and Emotional Excitement. W. B. Cannon, M.D., 307.

Committee on Cost of Medical Care

Report of the, 38.

Communications

Pages 57, 152, 196, 256, 339, 571, 673.

County Societies

Alpena County, 145.

Bay County, 145, 204, 299, 377, 679.
Berrien County, 204.

Calhoun County, 67.
Chippewa County, 145.
Clinton County, 679.

Dickinson-Iron County, 145, 377.

Eaton County, 204.

Genesee County, 679.
Gogebic County, 204.
Grand Traverse-Leelanau County, 145, 146, 300, 341, 377.
Gratiot-Isabella-Clare County, 67, 145, 300, 341, 342, 387, 413, 414, 476, 631, 679.

Hillsdale County, 67, 68, 204.
Houghton County, 205.

Ingham County, 146, 147, 342.
Ionia-Montcalm County, 68, 680.

Jackson County, 147, 205.

Kalamazoo County, 147, 148, 631, 680.

Lapeer County, 342.
Livingston County, 414, 681.
Luce County, 148.

Macomb County, 68, 69.
Marquette-Alger County, 148, 205.
Mason-Lake, Manistee-Oceana County, 632.
Mecosta County, 69, 148, 300.
Menominee County, 68.
Midland County, 205, 681.
Muskegon County, 69, 148, 149, 342.

Newago County, 205.
Northern Michigan County, 149, 205, 206, 300, 343, 414, 475, 476, 529, 570.

Oceana County, 149.
O. M. C. O. R. O. County, 149.
Ontonagon County, 206.

Saint Clair County, 69, 70, 149, 150, 206, 300, 301, 342, 343, 378, 632, 681.
Sanilac-Huron County, 70.
Seventh District Conference, 633.
Shiawassee County, 150, 378, 379, 476, 570.

Tri-County, 682.
Tuscola County, 70, 150, 414.

Upper Peninsula Medical Society, 529.

Wayne County, 633, 634.

The Doctor's Library

Pages 154, 209, 303, 348, 382, 418, 477, 572, 636.

Editorial Department

Afflicted Child Law, The, 668.
After the Tumult and the Shouting Dies, 121.
Annual Meeting, The, 404.
Back Pain, 456.
Banking Situation, The, 335.
Birth Certificate, 511.
Business in the Practice of Medicine, 510.
Cancer Cures, 454.
Checking Up on the Other Doctor, 372.
Committee Report, An Important, 404.
Contract Practice, 371.
Deadly Dole, The, 122.
"Died Following Operation," 193.
Digitalis and Heart Disease, 194.
Doctor's Automobile, The, 670.
Dr. Richard R. Smith, President-Elect, 562.
Editorial Notes, 372.
Erroneous Impression, An, 455.
Expert Witness, The, 511.
Explanation, An, 334.
Fistulous Alexis, The, 189.
Freedom of Speech, 454.
Group Practice, 250.
Gynecology Information, 670.
Health Insurance, 405.
Health Insurance Again, 583.
Hemostasis, 585.
"Hospital Aid Plan," 117.
Inroads Into the Practice of Medicine, 51.
Is It Fear? 455.
Laboratory Service, 334.
Law and Medicine, 563.
Limiting the Number of Medical Graduates, 117.
Making the Motorist Responsible, 510.
Medical Journal, The, 563.
Medical Politicians, 52.
Medicine. How is it Pronounced? 671.
Misery's Company, 584.
"Nothing in Excess," 334.
Observer at Lansing, An, 333.

On Being Independent, 564.
Osteopathic Bill Vetoed, The, 455.
Periodic Health Examinations, 116.
Physicians as Legislators, 333.
Plea for Professional Unity, A, 120.
Post-Graduate Medicine, 582.
Post-Graduate Opportunities Brought to Our Door, 250.
Post-Graduate Opportunities, 189.
President of the Michigan State Medical Society, The, 561.
Prevention of Tuberculosis in Adults, 669.
Quest of the Good Life, The, 584.
Reflections—1933, 669.
Serendipity, 405.
Social Values Might Be Preserved, The, 371.
Society Membership, 582.
Specialist, 335.
Suggestion for Medical Care of the Indigent, A, 122.
Supply of Physicians Exceeds the Demand, The, 52.
Swedish Medical History, 511.
Technocracy, 118, 670.
Tree That should Be Spared, A, 334.
Value of Organization, The, 564.
What is Socialism? 192.
X-ray and the Depression, 191.

Historical

A Brief Medical History of Grand Rapids. Collins H. Johnson, M.D., 460.
A Doctor's Records of a Hundred Years Ago. Howell L. Begle, M.D., 565.
The Microscope, 672.

Medical Economics

Analysis of the Minority Report of the Committee on the Costs of Medical Care, An. H. W. Plaggemeyer, M.D., 253.
Battle Creek Plan for Medical Care of the Indigent, The. The Academy of Medicine and Dentistry, 196.
Medicine's Way Forward. J. C. S. Battley, 408.
New Deal in Medicine, The. J. C. S. Battley, 337.
Supervision of Specialism. Andrew P. Biddle, M.D., 456.
Trends in Medical Economics. Lloyd L. Savage, M.D., 54.

Michigan's Department of Health

C. C. Slemons, M.D., 36, 114, 186, 247, 331, 368, 401, 448, 508, 560, 580, 666.

News and Announcements

Pages 58, 139, 208, 302, 346, 379, 416, 476, 530, 571, 634, 683.

Obituary

Branch, John C., 123.
Busard, R. I., 476.

Charters, J. Hamilton, 476.
Connor, Ray, 348.
Currie, Ernest Morrison, 476.

Darling, Cyrenus G., 348.
Davidson, Edward C., 530.

Felshaw, Charles P., 348.

Gale, H. M., 196.
Green, George W., 589.

Haynes, L. W., 348.
Hoyt, Everett A., 381.

Kahn, Samuel, 589.

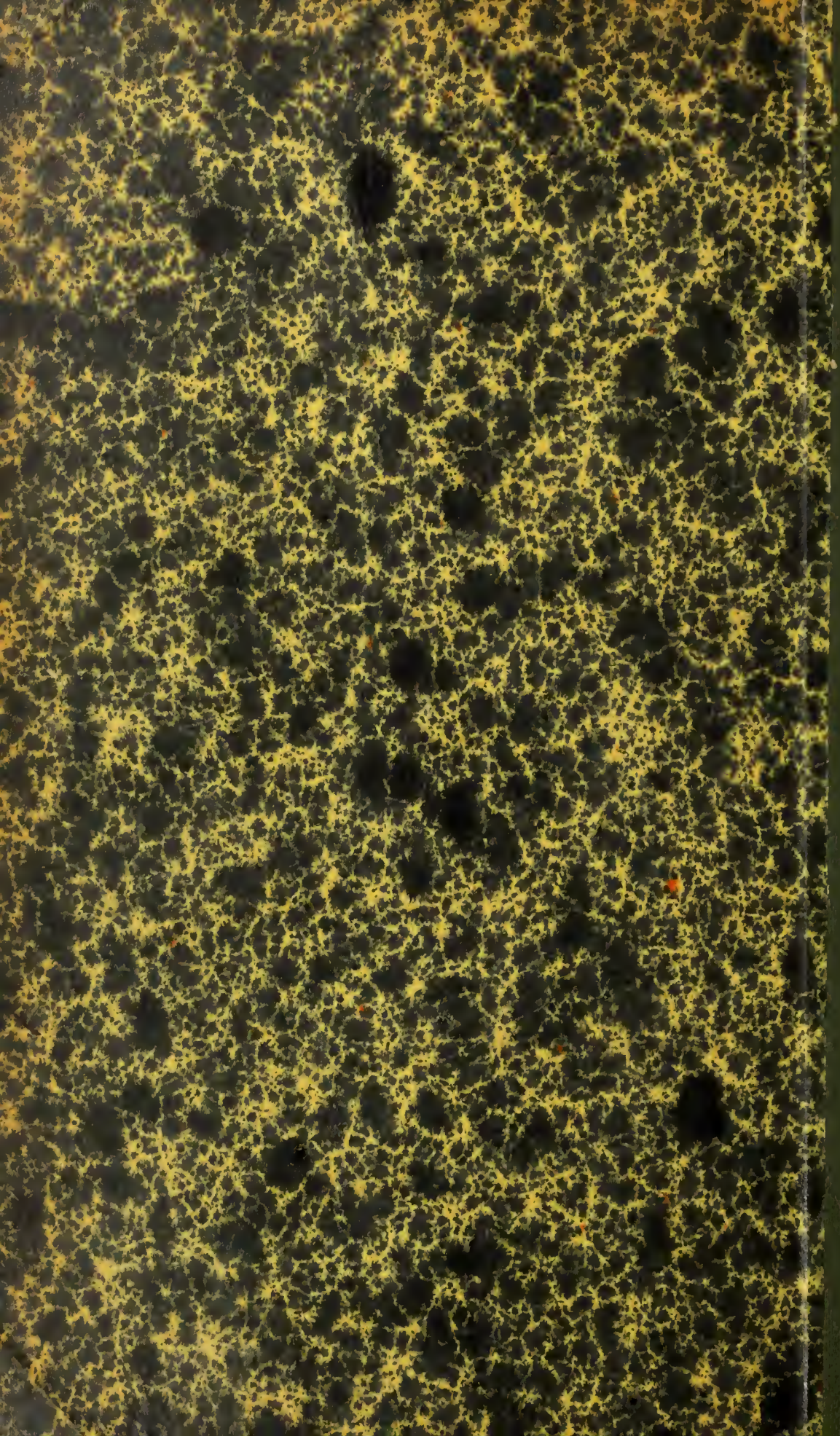
Lefebvre, Arthur, 589.
Leventis, Constantine, 381.
Lim, W. K., 123.
Loucks, Roland E., 416.

Miller, G. Devere, 347.
Moss, Ransom, 123.

Safford, H. E., 567.
Seaborn, Robert A., 348.
Slocum, George, 348.
Smith, Rayburn B., 381.

Woman's Auxiliary

Pages 71, 151, 206, 301, 343, 379, 414, 530, 634, 682.

497

U. HOLZER
BINDER
BOSTON, MASS